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PART FIRST.

ORIGINAL COMMUNICATIONS.

Art. I.—*To the Medical Profession of Ohio.*

The substance of the following paper, was communicated to the "*Fairfield County Medical Institute*," at its July sitting, with a request by resolution, that I should furnish them with a list of those plants that are known, or considered medicinal; the histories and qualities of which are not enumerated in Wood & Bache's truly national *Dispensatory of the United States*. They requested also, that I should annex the synonymous and common names by which they are known throughout the country. I find by reference to Riddell's *Synopsis of the Flora of the Western States*, made in 1834; Sullivant's *Catalogue of Plants in the vicinity of Columbus, Ohio*, 1840; and my own *Herbarium*, that we have about 387 species of plants, possessing medicinal qualities, growing wild or in a naturalized state in Ohio. One hundred and twenty-three of these, are embodied in the great work before referred to; 64 are embraced in the *Appendix*, leaving about 200 species hardly even mentioned.

Of those noticed in this paper, it can hardly be expected that all, on examination, will be found worthy of a place in our national *Pharmacopœia;* but the properties of a large proportion of them, are very partially known: and an enumeration of them with a brief indication of the medical activity of the natural orders to which they belong, will greatly facilitate the enlightened investigator in his path of discovery.

Since the sitting of the *Institute*, I find my name reported in the July No. of the *Ohio Medical and Surgical Journal*, for 1849, as having been appointed Chairman of a "Committee on Materia Medica and Botany in Ohio," by the *Ohio State Medical Society*, with the permission of selecting my associates. To carry out, in any considerable measure, the views and intentions of the *Society*, in the establishment of the committee, it

is necessary that every member of the Profession in Ohio, should co-operate in the collection and diffusion of facts, in this branch of medical progress. And I hereby cordially invite every member of the Profession, to participate in the duties of the commission. The field open for investigation, being so fertile and extensive, I propose, that those who prefer, can make their reports directly to the *Society*. Those who do not, but are willing to perform some service in the Profession, may address me at Lancaster, by the 10th of April, 1850, any communications, facts, or suggestions upon this interesting subject, and their claims to notoriety, shall be honorably and faithfully observed. If any member should obtain facts in relation to the medicinal qualities of plants, the natural order and botanical names of which, he is not familiar with, on his forwarding me by mail, or otherwise, a dried specimen, I will afford him all the information of which I am capable. Rare plants, also, without reference to their medicinal qualities, not enumerated in the *Catalogues* heretofore mentioned, tending to elucidate the Botany of the Western States, will be most thankfully received, and the favor reciprocated.

There are so many sources of fallacy surrounding this branch of our profession, that whoever attempts to embody a system in accordance with the true principles of science, will meet with difficulties on every hand; the same that are encountered on all other subjects, not demonstrable with mathematical certainty. Adverting to a few of them in this connection, will not be altogether out of place. Some of these difficulties are inherent in the subject, and will probably never be wholly obviated. Others can, in a measure, be guarded against, by a rigid adhesion to the inductive philosophy. I believe, many times, medicines of the vegetable kingdom acquire the reputation of possessing peculiar qualities, from adventitious circumstances; and we ought to be satisfied, only, with the observed effects of them, under repeated, and every variety of circumstances that can be obtained.

The time for gathering, and the manner of preparing plants for medicinal purposes, are important, and should be carefully observed. I do not know the best time for gathering all plants, yet general rules will guide us, in some degree, though not without exceptions. With many plants, it is absolutely necessary to gather them every year. Others will retain their activity a number of years; but, as a general rule they should be collected every year.

Prof. Wood, in an *introductory* delivered to his class in 1840, observed that Shoepf, 50 years ago, advanced the opinion, "that relying upon their native resources, the Americans might

dispense with the greater part, if not the whole of imported medicines." To this opinion, however, after half a century has been spent in the investigation and improvement of our indigenous Materia Medica, Prof. Wood cannot assent.—He says, "the present standard remedies, have for the most part been gathered from all quarters of the globe, have gone through every variety of trial, have been sifted out from an immense mass of materials, and hence stood the test of experience, which for thousands of years has been in the course of accumulation." Concceding all this however, it must be admitted, that from custom, or indolence, or want of thought, or some other cause, we are too much in the habit of depending on foreign countries for our supplies of vegetable medicines, such, even, as we could furnish ourselves in a far purer and fresher state. And when we take into consideration, the immense amount of old, decayed, deteriorated, effete and adulterated stuff, cast upon our shores from foreign countries, said to be at a cheap rate, but which, in the end, would be dear, even if they *paid us* for using it, at the rate we charge our patients; it is surprising, that long ere this, we had not opened our eyes to the imposition, and learned to rely on the rich resources of our own country. I feel that a brighter day is dawning, and that through the enlightened and indefatigable efforts of our talented friend and colleague, Dr. Edwards, in Congress, a revolution in this respect, has, at this time, commenced; and that henceforth, many domestic medicines, which are superior substitutes, will be used in preference to the foreign article. When depending on our own resources, we can always have them fresh at any rate, while the foreign article must necessarily, in some cases, become old and effete.

An excellent paper by the late Prof. Duhamel, on the collection, preservation and preparation of plants, will be found in the *American Journal of Pharmacy*, Vol. I. page 16[illegible], to which I must refer as the best source of information on the subject, that is known at this time.

The time for collecting plants for medicinal purposes, depends upon the parts that are required for use. *Seeds*, of course, should only be collected when they are fairly ripe.

It is very difficult to dry *flowers* so as to keep their sensible properties. Some are incapable of being completely dried, without entirely destroying their active qualities. Others may be dried without difficulty or deterioration. They should be dried as rapidly as possible, excluded from light, at a temperature of 130 to 140 degrees Fah. After being completely deprived of moisture, they may be compressed, in the manner practiced by the Shakers, which keeps them in a very efficient condition.

The same care must be observed in drying *leaves*, in order to preserve their natural color. The time, in general, to collect leaves, is after the flowers have expanded, and before the seeds ripen. I believe however our Cassias should not be gathered until the fruit ripens. It is important to remark that the leaves of biennials should not be collected until their second season of growth, while the roots are only fit for use their first.

The best season for the collection of *barks*, is when they can be most easily separated from the wood. In all cases, they should be procured before the flowers are produced, or after the re-productive process is terminated, as at this time, all other portions of its structure are deprived of their usual proportion of proper juices to be directed to the elaboration of the organs necessary for the re-productive functions. Those that have attained their full powers, are best. The very young, or very old, should be rejected.

When woody *stems* are to be collected, the proper season is winter, as at this time the wood furnishes a greater quantity of extract. If they are herbaceous, they should be gathered after the leaves are fully formed, and before the flowers are expanded.

Roots of perennial plants, should be collected late in the Autumn, in Winter, or early in the Spring. Biennials should be collected in the Autumn of their first year, on the disappearance of the leaves. And the roots of annuals, in the Autumn, before the decay of the stems. Much of the activity of plants depend upon an observance of these simple rules; yet they are, by no means absolute, requiring variation, sometimes, in accordance with the peculiar plants, and in others with the parts required for use. Cultivation, dryness, or wetness of the particular season and locality, have much influence upon the virtues of many species, all of which should be specially noted in making up their exact history.

When it is remembered, with what difficulty the physician is embarrassed, in adjusting the doses of old and well established medicines, to the various pathological conditions of his patients, it will not be a matter of surprise, that, in the exact establishment of the effects and properties of new and untried ones, our difficulties should be greatly enhanced. In the former, we have the experience and observations of the most enlightened minds for ages, upon the subject to serve us as guides; while in the latter we have to grope our way in utter darkness —like a way-faring man, cutting his path through a perfect wilderness. I have little doubt, but that many articles, which are at present laid by, from a loss of the reputation they once held, induced by the want of a proper appreciation of the

doses, adapted to the pathological state of the system, will be resuscitated, and found possessing valuable properties upon further, more careful, and exact information upon the subject. It will therefore behoove us to be extremely careful and circumspect, if we attempt to travel the untrodden paths of science—to admit nothing that will not stand the severest test of scrutiny, and at the same time, so vary and multiply our observations and experiments, as to let nothing escape our attention, that will prove a real acquisition to the profession we adore.

ORDER I. RANUNCULACEÆ. (*Crow-foot Family.*)

Acridity, causticity and poison are the general characteristics of this order. There are exceptions, as in *Coptis*, which is a very pure bitter; *Hydrastis*, which is bitter and astringent, and *Cimicifuga*, a mild anti-spasmodic.

Sp. 1. RANUNCULUS ABORTIVUS. Linn.

Common name—Small flowered Crowfoot—Chicken pepper. Erect, 1°—1½° high, fl. pale yellow, minute.—April, June.

Sp. 2. R. PENNSYLVANICUS. Linn.

Com. name—Bristly Crowfoot. Wet places; coarse plant. 2°—3° high, inconspicuous pale flowers—June, Aug.

Sp. 3. R. REPENS. Linn.

Com. name—creeping crowfoot; Butter cups, Stem creeping, 4'—6' long, petals deep yellow, large.—June, Aug.

These are all very common plants, are powerful vesicatories, and acrid rubefacients.

Sp. 4. AQUILEGIA CANADENSIS. Linn.

Com. name—wild Columbine; 1° high, flower, showy scarlet. —April, June. The seeds are said to be tonic.

Sp. 5. THALICTRUM ANEMONOIDES. Mich.

Com. name—meadow Rue, Rue leaved anemone. A pretty, small plant, like anemone; flowers few in a simple umbel—white.—April, May. There are many other species of this order, some of which may be found to possess medicinal virtues of a high order.

ORDER II. BERBERIDACEÆ. (*Barberry Family.*)

All the American plants of this order, are spoken of as medicinal, among which we notice *Podophyllum.* (May apple.)

Sp. 6. LEONTICE THALICTROIDES. Linn.

Com. names—Cohosh, Blue Cohosh, Blueberry, Papoose root, Squaw root, Blue Ginseng, Yellow Ginseng; 1½° high. Flowers small, yellowish green; seeds the size of large peas, blue.—May.

According to Rafinesque, it is demulcent, anti-spasmodic, emmenagogue, sudorific, &c. The Indians and their imitators, he says, use it against Rheumatism, Dropsy, Sorethroat, Cramp, Hiccup, Epilepsy, Hysteria, Inflammation of the Uterus, &c. Smith asserts that the Indian women owe the facility of their parturition to a constant use of a tea of the root, for 2 or 3 weeks before their time. It may be used in infusion, decoction, tincture and syrup.

Sp. 7. JEFFERSONIA DIPHYLLA. Pers.

Com. names—Common Twin leaf; Rheumatism root; Yellow root; Helmet pod; Ground Squirrel pea. Very much resembles a *Podophyllum*. 3'—6' high; flowers white 1' broad. —April, May.

Rafinesque asserts that the Indians used this plant as a diuretic in Dropsy. Riddell mentions that it was used by Dr. Jones, as a stimulant, diaphoretic, anti-Rheumatic, and anti-spasmodic. I think it is worth analyzation and fair trial.

ORDER III.—CABOMBACEÆ. (*Water Shield Family.*)

Sp. 8. BRASENIA PELTATA. Pursh. Syn. HYDROPELTIS PURPUREA. Michx.

Com. names—Water Shield, Frogleaf, Little Water Lilly, Water Jelly, Deer Food. Stalks coated with clear jelly.—Leaves entire 2'—3' across.—July.

Rafinesque ranks this plant as intermediate between *Lichen Islandicus* and the *Water Lillies*, possessing mucilaginous, astringent, demulcent, tonic and nutritive properties. It may, on trial, be found a superior substitute for *Lichen* in phthisis, inflammation of mucous membranes, debility, &c.

ORDER IV.—PAPAVERACEÆ. (*Poppy Family.*)

Opium and *Sanguinaria*, are representative products of this most important order, and so familiar with the profession, that a word of comment is not necessary.

Sp. 9. STYLOPHORUM DIPHYLLUM. Nutt. Syn. MECONOPSIS DIPHYLLA. D. C.

Com. names—Celandine poppy; Horn poppy; Braise root. Flowers yellow, 2' broad.—May, Aug.

Shœpf says that it has a yellow juice like *celandine*, but more fetid, deleterious, narcotic and phantastic. Used externally for

wounds, contusions and gravelly pains. The leaves infused in wine, taken in small doses for gravel in Portugal, &c.

Sp. 10. Argemone mexicana. Linn.

Com. name—Mexican Prickly poppy. Flowers solitary; pale yellow or white; Calyx prickly.—July, Oct.

Said by Rafinesque to unite the properties of *opium*, *gamboge* and *celandine*. It is anodyne, detersive, resolutive, hypnotic and diuretic. Seeds drastic and emetic. Used in Herpetic diseases, Psora, Sore eyes, Dropsy, Jaundice, &c.

Order V.—FUMARIACEÆ. (*Fumitory Family.*)

This is rather a feeble order, but according to Lindley, some plants contain a peculiar alkaloid called Corydalin.

Sp. 11. Dicentra cucullaria. D. C.

There has been a good deal of confusion in spelling this name correctly among high authority. De Candolle spelt it *Diclytra*. Torrey and Gray, as good American authority as can be produced, spelt it Dielytra in 1840.

Com. name—Dutchman's Breeches. A very delicate plant, with a slender scape bearing 4—10 pretty, but *odd shaped*, *white flowers* tipped with cream color.—April, May.

Sp. 12. Dicentra canadensis. D. C.

Com. name—Squirrel corn; Colic weed. Much like the preceding. Flower greenish-white tinged with red, fragrance of Hyacinths.

Riddell mentions that Dr. Jones, of Columbus, uses a drachm three times a day as a substitute for mercury, in venereal complaints. It is used as a lotion externally, in syphilis and gonorrhœa. Riddell imagines that it is probably secernent, stimulant, diuretic and diaphoretic. I have, myself, substituted it in cutaneous diseases, for the *Fumaria officinalis* of the shops. It is probably worth investigating.

Sp. 13. Corydalis aurea. Willd.

Com. name—Golden Corydalis. Flowers golden-yellow, and showy, or paler and less handsome; Pods hardly 1′ long, uneven.—April, July.

Sp. 14. Corydalis glauca. Pursh.

Com. name—Smooth Corydalis. Corolla whitish, shaded with yellow and flesh color.—May, July.

Probably possessing properties in common with the order.

Order VI.—CAPPARIDACEÆ. (*Caper Family.*)

Properties—acrid, bitter, nauseous.

Sp. 15. Polanisia graveolens. Raf.

Com. names—False mustard; Clammy mustard; Worm weed; Stink weed; Common Clammy weed. Flowers small, calyx and filaments purplish; petals yellowish white —June, August.

Active anthelmintic, resembling in its effects, *Chenopodium anthelminticum.* The whole plant may be used, either in powder, decoction, or syrup.

It is noticed in Griffith's Medical Botany, p. 139.

Order VII.—VIOLACEÆ. (*Violet Family.*)

Lindley tells us that the roots of all *Violaceæ*, appear to be more or less emetic, a property, so strongly possessed by South American species, as to acquire the name of Ipecacuanha.—Hence, we have every reason to believe, we would be doing good service in the cause of American Pharmacy, to investigate this hitherto much neglected order.

Sp. 16. Solea concolor. *Ging.* Syn. *Viola Concolor.* Pursh.

Com. name—Green Violet. A homely plant 1°—2° high. Pod 1′ long.—June.

Sp. 17. Viola blanda. Willd.

Com. name—Sweet white violet. Flowers small, fragrant. —April, May.

Sp. 18. V. Sagittata. Ait.

Com. name—Arrow leaved Violet.

Leaves halbert form or arrow shaped. Flowers large deep blue.—May.

Sp. 19. V. Cucullata. Ait.

Com. name—Hood leaved Violet. Foliage variable.—Flowers large and numerous; deep colored blue.—Apl. June.

Sp. 20. V. Palmata. Linn.

Com. name—Palmate Violet. Flowers same as 19. Leaves very variable.—May.

Sp. 21. Viola rostrata. Pursh.

Com. name—Long Spurred Violet; plant 4′—6′ high.—Flowers large in proportion; pale; Spurr ½′ long.—June.

Sp. 22. V. Muhlenbergii. Torr.

Com. name—Spreading Violet. Stems 4′—7′ long. Flowers middle-sized.—May, June.

Sp. 23. V. Striata. Ait.

Com. name—Pale Violet. Flowers sulphur color.—May, June.

Sp. 24. V. PUBESCENS. Ait.

Com. name—Downy Yellow Violet; plant 6′—10′ high.—Flowers deep yellow.—June. July.

Sp. 25. V. TRICOLOR. Linn.

Com. name—Field Pansy; Heart's Ease; from gardens.—May, July.

These plants are all very common and well known.

ORDER VIII.—CISTACEÆ. (*Rock Rose Family.*)

Sp. 26. HELIANTHEMUM CANADENSE. Michx.

Com. name—Frost weed, Frost plant. Crystals of ice shoot from the bark at the root.—June, Aug.

Sp. 27. HELIANTHEMUM CORYMBOSUM. Michx.

Com. name—Rock Rose.—June, August.

Tonic, astringent, deobstruent, alterative, &c.

In the Appendix of the last edition of Wood & Bache, will be found an account of these plants.

Dr. Ives, Dr. Parrish and Dr. Tyler have used them with success in scrofula, scrofulous sore eyes, diarrhœa and secondary syphilis. Dr. Brocket, (*West. Lancet, Vol. III. p.* 432,) has used them in eczema, &c.

ORDER IX.—MALVACEÆ. (*Mallow Family.*)

Sp. 28. NAPÆA DIOICA. Linn. Syn. *Sida dioica.* Cav.

Com. name—Glade Mallow. Root leaves 1°—2° broad.—July.

Sp. 29. MALVA SYLVESTRIS. Linn.

Com. name—High Mallow. Partially naturalized.—May. August.

Sp. 30. HIBISCUS MOSCHEUTOS. Linn.

Com. name—Swamp Rose Mallow. Plant stout, 5° high, corolla 5′ in diameter.

Sp. 31. H. SYRIACUS. Linn.

Com. name—Shruby Althæa; common in gardens; a small tree.—July, August.

ORDER X.—TILIACEÆ. (*Linden Family.*)

Sp. 32. TILIA AMERICANA. Linn.

Com. names—Bass wood, White wood, Lime tree. Flowers cream color; fragrant; large tree.

ORDER XI.—LINACEÆ. (*Flax Family.*)

Sp. 33. LINUM VIRGINANUM. Linn.

Com. name—Wild Flax. Biennial or perennial? Stem 1°—2° high.—June, August.

The above three orders all possess purely mucilaginous properties. They are also all perfectly innocuous and healthful.

ORDER XII.—ZANTHOXYLACEÆ. (*Prickly Ash Family.*)

Nearly all the plants known of this order, are aromatic and pungent. Some are powerful sudorifics and diaphoretics.—According to Barton, they possess the remarkable property of exciting salivation, whether applied immediately to the gums or taken internally.

Sp. 34. PETELA TRIFOLIATA. Linn.

Com. name—Shrubby Trefoil, Swamp Dog wood, Stinking Prairie Bush, Stinking Ash, Wing Seed. A tall shrub; fruit bitter.—June.

Riddell says it has been used in the cure of intermittents, and believes it to possess active medicinal properties.—(*Synop. West. Flor.* 34.)

ORDER XIII.—ACERACEÆ. (*Maple Family.*)

Sp. 35. ACER PENNSYLVANICUM. Linn.

Com. names—Striped Maple, Striped Dogwood, Moosewood, Dock Mackie Maple. A small slender tree.—June.

Used as a topical application in inflammations.

Sp. 36. A. RUBRUM. Linn.

Com. name—Red Maple, Swamp Maple. Large tree.

An extract from the bark is astringent, and might many times be substituted for high priced foreign articles.

ORDER XIV.—HIPPOCASTANACEÆ. (*Horse Chestnut Family.*)

Sp. 37. ÆSCULUS GLABRA. Willd.

Com. names—Ohio Buckeye, Fetid Buckeye. Small tree. Flowers small; not showy.—May, June.

Sp. 38. Æ. FLAVA. Ait.

Com. names—Yellow Buckeye, Smooth Buckeye. Often a large tree. Seeds very large.—May.

These are the emblem trees of Ohio, and beyond question, possess medicinal properties of considerable power; yet we do not know the cases to which they are exactly adapted.—The effect of the leaves in the Spring, and of the fruit in the

Fall, upon cattle that eat them, are well known to every physician of the west. It appears strange, therefore, that we do not more carefully investigate their just position in the Materia Medica, instead of depending upon foreign substitutes of equally doubtful, and more variable and unknown properties.

ORDER XV.—CELASTRACEÆ. (*Spindle-tree Family.*)

Sp. 39. CELASTRUS SCANDENS. Linn.

Com. names—Wax Work, False Bittersweet, Climbing Bittersweet, Fever-twig, Staff-vine. Stem woody, twining, scarlet covering of the seeds, ornamental.—June.

Sp. 40. EUONYMUS ATROPURPUREUS. Jacq.

Com. names—Burning Bush, Indian Arrow, Spindle-tree.—Shrub 10°—12° high. Fruit in copious clusters; crimson, ornamental.—June.

This is rather an active order, but little used in regular practice. GRIFFITH says that the general character of the order is acridity, but the seeds yield an oil which is useful for a variety of purposes. *Celastrus Scandens*, according to Rafinesque, is equivalent to *Dulcamara* and *mezereon*. Riddell asserts that it has been used by Thompsonians as a stimulating diuretic, and in doses of 3i, 3 times a day, of the powdered bark, is capable of removing hepatic obstructions. Griffith, (Med. Bot. p. 219,) regards the two species as equivalents of each other and used alike. My friend, Dr. WHITE, of Lancaster, recently mentioned to me, that *Euonymus Atropurpureus*, had been used in intermittents. Indeed, he thinks it will not only as certainly cure intermittents as quinine; but that it will prevent their subsequent recurrence. Should such be the fact, it will certainly prove an acquisition to our Materia Medica. They are at least worthy of extended trial.

ORDER XVI.—VITACEÆ. (*Vine Family.*)

Sp. 41. AMPELOPSIS QUINQUEFOLIA. Michx.

Com. names—Virginian Creeper, American Ivy, Five leaved Ivy, Woody Climber. Flowers in July. Berries black, in Oct.

Eberle recommended this plant as an admirable expectorant in pulmonary complaints, an account of which may be found in the 1st Vol. of West. Med. Gaz.

ORDER XVII.—LEGUMINOSEÆ. (*Pulse or Bean Family.*)

This is one of the most extensive, as it is also one of the most important in the vegetable kingdom, whether it has reference to objects, either of ornament, of utility, or of nutriment.

Sp. 42. Robinia pseudacacia. Linn.

Com. names—Common Locust, False Acacia, Black Locust. Flowers white; fragrant; large tree.—June.

Inner bark sweetish, like liquorice, emetic, cathartic and pectoral, according to doses; root best. Blossoms laxative.—(Rafinesque Med. Flor. Vol. II. p. 258.)

Sp. 43. Baptisia leucantha. Torr. and Gr.

Com. name—Tall White False Indigo. Flowers white.—Pods 2′ long.—July.

Closely allied to *B. Tinctoria*, of which a tolerable good history is given by Rafinesque, (Med. Flor. Vol. I. p. 79,) and Wood and Bache. It possesses the same properties and is considered valuable by some physicians.

Sp. 44. Cassia chamæcrista. Linn.

Com. names—Prairie Senna, Partridge Pea, Wild Senna.—Stems spreading; 1° long; showy, bright yellow petals.—Aug.

Riddell says that this is a better cathartic than the *C. Marilandica*, and most writers, that this last is better than the *Egyptian Senna* of the shops. I have used C. Marilandica, but have not been pleased with it. My ill-success with it however, may have been caused by its not having been gathered and cured in a proper manner, and at a proper season. I gathered in Summer, when it was in blossom; but Rafinesque says it should be collected in Autumn after the fruit has ripened. If it is worthy, it should certainly supersede the foreign article.

Sp. 45. Tephrosia virginiana. Pers.

Com. names—Hoary Pea, Turkey Pea, Goat's Rue, Catgut, Devil's Shoe Strings – 1° high; large, handsome blossoms, yellowish-white, marked with red-purple.—June.

Griffith, (Med. Bot., 248,) recommends giving it a fair trial, from the fact that other species of the genus are known to possess active qualities, especially of a purgative character.

Order XVIII.—ROSACEÆ. (*Rose Family.*)

A well known order, possessing valuable astringent, tonic, and anodyne properties.

Sp. 46. Spiræa opulifolia. Linn.

Com. name—Nine Bark. Shrub 4°—10° high. Flowers white; pods tinged with purple.—June.

Sp. 47. S. Salicifolia. Linn.

Com. name—Willow-leaved Meadow Sweet. Shrub 2°—5° high. Flowers white; tinged with purple.—July.

Sp. 48. S. TOMENTOSA. Linn.

Com. names—Hard Hack, Steeple Bush, Rosy Bush. Shrub 3° high. Flowers rose color.—July.

Not well recognised in our books. Griffith, (Med. Bot. 281,) states that the part recognised in the U. S. Pharmacopœia, is the least valuable; and *S. Tomentosa*, is the only one noticed. They should be further and more closely investigated.

Sp. 49. S. LOBATA. Murr.

Com. name—Queen of the Prairie. Herbaceous, perennial. Stem 4°—8° high. Flowers deep peach blossom color; very handsome.

The blossoms, and probably the young seed pods, possess a peculiar fragant and aromatic astringency, that will doubtless render it valuable when we come to know more of its properties.

Sp. 50. AGRIMONIA EUPATORIA. Linn.

Com. names—Common Agrimony, Cockle Burr, Stick-wort. Root sweet scented.—July, Sept.

Mild astringent, tonic and corroborant. Useful in coughs, and bowel complaints, (Rafinesque Med. Flor. 1–34.)

Sp. 51. SANGUISORBA CANADENSIS. Linn.

Com. name—Canada Burnett. A tall herb; flowers white, sometimes purple.—August, Oct.

Slightly astringent and tonic—(Riddell Syn. West. Flor. 17.)

Sp. 52. GEUM VIRGINIANUM. Linn.

Com. names—White Avens, Evan root, Avens, Chocolate root, Cure-all, Throat-root.

Sp. 53. GEUM VERNUM. Torr. and Gr. Syn. *Stylipus*. Raf.

Com. name—Western early Avens. Flowers small, yellow. —April, June.

These, as also all the others of the genus, are astringent, styptic, tonic, febrifuge, and stomachic. Much neglected by the profession, from no other cause that I know of, but that they are so easily obtained.

Sp. 54. POTENTILLA CANADENSIS. Lind.

Com. names—Cinque-foil, Five-finger. Very common.—Flowers yellow.—April, October.

Sp. 55. P. NORVEGICA. Linn.

Com. name—Norway Cinque-foil. A coarse, homely, annual or biennial weed.—July, Sept.

A very good mild astringent.

Sp. 56. COMARUM PALUSTRE. Linn. Syn. *Potentilla Palustris*. Scop. &c.

Com. name—Marsh Cinque-foil. Stems 1°—2° high.—June.

Another active and useful astringent.

Sp. 57. Fragaria virginiana. Ehrh.

Com. name—Wild Strawberry.—April, June.

Leaves astringent. Berries a delightful refrigerant. Griffith, (Med. Bot. 277,) condescends to notice this well known plant, although hitherto, our Pharmacologists have entirely neglected it. It is a native and beautiful plant, and deserves not the neglect that has been doled out to it.

Sp. 58. Rubus strigosus. Michx.

Com. name—Wild Red Raspberry. Stem biennial.—May. Leaves frequently used as a mild astringent.

Order XIX.—CALYCANTHACEÆ. (*Calycanthus Family.*)

Sp. 59. Calycanthus floridus. Linn.

Com. names—Carolina Allspice, Sweet Scented Shrub.

Shrubs 5°—10° high. Flowers lurid purple.—March June.

Root, according to Rafinesque, is very strong emetic.—(Med. Flor. Vol II. p. 203.)

Order XX.—ONAGRACEÆ. (*Evening Primrose Family.*)

Sp. 60. Ephilobium angustifolium. Linn.

Com. name—Great Willow Herb. Stem 4°—10° high.—Flowers pink-purple, very showy; pods hoary.—July.

Roots emollient, slightly astringent, and anti-dysenteric.—(Riddell Syn. West. Flor. 15.)

E. Coloratum. Muhl. Com. name—Purple Veined Willow Herb. Plant 1°—3° high. Common in all parts of the State. My friends, Drs. Van Fossen & Kreider have used this plant in cases of Dysentery with marked benefit.

Sp. 61. Œnothera biennis. Linn.

Com. names—Common Evening Primrose, Cure-all. Stem erect 3°—7° high; flowers bright yellow.—June, Sept.

Griffith, (Med. Bot. 304,) gives this plant a place in his book. He says the bark and leaves in a recent state are mucilaginous, and leave a slight sensation of acridity after being chewed.—He used it in infantile eruptions, of an obstinate character; bathing the eruptions several times a day, with a decoction made of the bark of the large stems and leaves.

Order XXI.—PASSIFLORACEÆ. (*Passion Flower Family.*)

Sp. 62. Passiflora lutea. Linn.

Com. name—Pale Passion Flower. Flowers greenish-yellow, small; vines climbing by tendrils.—July, Sept.

Griffith, (Med. Bot. 144,) remarks that our information with regard to this genus of plants, is far from being definite; yet, he believes they possess active qualities, capable of fulfilling a variety of indications. Some of them possess narcotic and emetic properties.

ORDER XXII.—CUCURBITACEÆ. (*Gourd Family.*)

Sp. 63. SYCIOS ANGULATUS. Linn.

Com. names—One Seeded Star Cucumber, Wild Bryony Succulent vines.—July, Sept.

Root and seeds bitter, purgative and diuretic. Equivalent of *Bryony* in dropsies—(Rafinesque Med. Flor. p. 263.)

ORDER XXIII.—CRASSULACEÆ. (*House Leek Family.*)

Said by Lindly to possess refrigerant and abstergent properties.

Sp. 64. SEDUM TERNATUM. Michx.

Com. names—False Ice Plant, Three-Leaved Stone Crop.—Petals white, common in gardens.—May, June.

Little is known of this order except what is said by Lindley.

ORDER XXIV.—SAXIFRAGACEÆ. (*Saxifrage Family.*)

Lindley observes that all the plants of this order possess more or less astringent properties. *Heuchera americana* is well spoken of and recommended by Wood and Bache, in the U. S. Dispensatory; but notwithstanding, it is almost entirely neglected by American physicians.

SUB ORDER I.—SAXIFRAGEÆ. (*True Saxifrages.*)

Sp. 65. SAXIFRAGA PENNSYLVANICA. Linn.

Com. name—Swamp Saxifrage. A homely species—scape 1°—2° high, upright; leaves 4′—8′ long.—May, June.

Sp. 66. SULLIVANTIA OHIONIS. Torr. and Gr.

Com. name—Sullivantia. Scapes 8′—12′ high; leaves 2′ across.—June.

Besides these, we have *Saxifraga virginiensis*, *heuchera pubescens*, *Mitella diphylla*, &c., all of which should be investigated.

SUB ORDER II.—HYDRANGEÆ. (*Hydrangea Family.*)

Sp. 67. HYDRANGEA ARBORESCENS. Linn.

Com. names—Wild Hydrangea, Bissum. Shrubs 2°—4° high; cymes flat; flowers often all fertile.—July.

Dr. Eoff has found the leaves tonic, sialagogue, cathartic and diuretic. Used in decoction or powder.—(Rafinesque Med. Flor. Vol. II. 229.)

ORDER XXV.—UMBELLIFERÆ. (*Parsley Family.*)

This is an important order, and well represented in our Dispensatories; but the American species are sadly neglected by our physicians.

Sp. 68. SIUM LATIFOLIUM. Linn.

Com. name—Broad-leafed Water Parsnip. Plant 2°—5° high. Leaflets 7—11.—July, Sept.

Deleterious plant, yet deemed diuretic, emmenagogue, herpetic and lithontriptic. Leaves used for obstinate cutaneous diseases, 6 spoonfuls of juice in a day, said not to hurt the head, stomach, nor bowels.—(Rafinesque Med. Flor. Vol. II. 264.)

Sp. 69. OSMORRHIZA LONGISTYLIS. D. C.

Com. name—Sweet Cicely. Plant 3° high, branching.—May, June.

Sweet aromatic, much of the flavor of Anise.

Sp. 70. THASPIUM BARBINODE. Nutt.

Com. name—Meadow Parsnip. Flowers yellow; fruit eliptical.—June.

Sp. 71. THASPIUM ATROPURPUREUM. Nutt. Syn. *Th. Cordatum.* Torr. and Gr.

Com. name—Round Heart. Flowers dark-purple; stem 1°—2° high.—June.

Vulnary, anti-syphilitic, sudorific, antidote to Rattle-snake bites.—(Rafinesque, 267.) This is an active genus of plants, and deserves to be studied and examined.

Sp. 72. ANGELICA LUCIDA. Linn.

Com. names—Angelic root, Belly-ache root, Nendo, White root. Introduced—bitterish, sub-acrid, fragrant, aromatic, stomachic and tonic.—(Rafinesque, 192.) I have ventured to put it down an Ohio plant on the authority of Riddell.

ORDER XXVI.—CAPRIFOLIACEÆ. (*Honey Suckle Family.*)

Not an active order, yet grouped and closely allied to those that are.

TRIBE I.—LONICERÆ. (*Honey Suckle Tribe.*)

Sp. 73. SYMPHORICARPUS RACEMOSUS. Michx.

Com. name—Snowberry. Berries large, bright-white, remaining till Winter.—June, September.

Root tonic, astringent, used for agues in Virginia. Bark used for syphilis by western tribes. Active fibrifuge in small doses.—(Rafinesque, 266.)

Sp. 74. DIERVILLA TRIFIDA. Mœnch.

Com. name—Bush Honey Suckle. Flowers honey colored, not showy.—June, Aug.

It has been used as a diuretic in gonorrhœa and syphilis, &c.—(Rafinesque, 216.)

TRIBE II.—SAMBUCEÆ. (*Elder Tribe.*)

Sp. 75. VIBURNUM LENTAGO. Linn.

Com. names—Sweet Viburnum, Nannyberry. Tree 15°—20° high; very handsome.—May, June.

Dr. Kreider says it has the reputation of curing intermittents equal to *cinchona*. If such are its properties, it is time for us to attend to it.

Sp. 76. VIBURNUM DENTATUM. Linn.

Com. names—Arrow Wood, Mealy Tree, Tily of the Indians. Shrub 5°—10° high; common.—June.

Contains a peculiar fragrant oil. Bark used by the Indians and Shakers as a diuretic. Used in decoction also to prevent and remove cancerous affections.—(Rafinesque, 274.)

Sp. 77. VIBURNUM PRUNIFOLIUM. Linn.

Com. names—Black Haw, Sloe leaved Viburnum. Tree like shrub, very handsome in flowers and foliage.—May.

Leaves used for tea in the south—(Rafinesque.)

ORDER XXVII.—CORNACEÆ. (*Dogwood Family*)

Besides those well known, and represented in our Dispensatories we have.

Sp. 78. CORNUS PANICULATA. L'Her.

Com. name—Panicled Cornel. Shrub 4°—8° high.—June. Substitute for C. Florida.

Sp. 79. CORNUS STOLONIFERA. Michx. Syn. *C. Alba Wang.*

Com. names—Osier Rouge, Red Osier Cornel.

Forms large dense clumps 3°—6° high

An infusion of the bark of the young twigs will allay vomiting.—(Riddell.)

ORDER XXVIII.—RUBIACEÆ. (*Madder Family.*)

This, including its Sub orders, is one of the most important in medical Botany: in the foreign representatives of which, will be found *Cinchona*, *Ipecacuanha*, *Coffee*, and among our natives *Spigelia*, &c.

SUB ORDER I.—STELLATÆ. (*True Madder Family.*)

Sp. 80. GALIUM CIRCÆZANS. Michx.

Com. names—Wild Liquorice, Master of the Woods. About 1° high. Flowers purple.—June, Aug.

Demulcent, expectorant and diuretic. It is quite popular as a domestic remedy.

Sp. 81. GALIUM ASPHELLUM. Michx.

Com. name—Rough Ladies Bed Straw. Stems weak, reaching 4°—5° high. Flowers numerous, small.—July.

Actively diuretic, like most of its congeners.

SUB ORDER II.—CINCHONEÆ. (*Cinchona Family.*)

Sp. 82. CEPHALANTHUS OCCIDENTALIS. Linn.

Com. names—Button Bush, White Ball, Little Snow Ball, Swamp Wood, Pond Dogwood, Globe Flower. Shrub 4°—10° high.—July, Aug. Abundant.

Rafinesque speaks highly of its virtues, and Griffith in noticing it, remarks that it deserves a fair trial at the hands of the profession.

Sp. 83. MITCHELLA REPENS. Linn.

Com. name—Partridge Berry. Pretty little trailing evergreen.—June, July.

By some it is regarded as an expectorant and emmenagogue, (Riddell.) Others as a mild diuretic; used in New England, to cure dropsy and gout.—(Rafinesque.) From its relationship it should command sufficient attention to determine its virtues.

ORDER XXIX.—VALERIANACEÆ. (*Valerian Family.*)

Sp. 84. VALERIANA PAUCIFLORA. Michx.

Com. name—American Valerian. Stems 1°—2° high.—Flowers pale pink.—June.

Said by Riddell to possess tonic, anti-spasmodic and vermifuge properties.

Sp. 85. VALERIANA CILIATA. Torr. and Gr.

Com. name—Fringed Valerian. Stem 2°—4° high; flowers polygamous, the pistillate smaller, greenish white.—June.

I know nothing by experience of these plants, but their affinities would seem to indicate their possession of useful properties. They are worthy of investigation.

ORDER XXX.—COMPOSITÆ. (*Compound Family.*)

This is one of the largest orders of North American phenogamous plants embracing over 900 species.

Sp. 86. VERNONIA NOVEBORACENSIS. Wild.

Com. names—Iron Weed, Flat Top. Tall coarse weed; flowers purple.—Aug. Sept.

Reported to be an active purgative. (Riddell.)

Sp. 87. EUPATORIUM SESSILIFOLIUM. Linn.

Com. name—Upland Bone Set. Stems (with us) 2°—2½° high, very much resembles *E. perfoliatum;* flowers white.—Aug. Sept.

Tonic according to Riddell. (Syn. West. Flor. 56.)

Sp. 88. EUPATORIUM AGERATOIDES. Linn.

Com. name—White Snake root. Stem 2°—3° high; flowers white.—Aug. Sept.

Anti-spasmodic, diuritic, diaphoretic. Used in nervous diseases. Dose 3i in infusion. (Riddell.)

It was thought at one time to be the cause of trembles in cattle and milk sickness in the human family.—(Sullivant's Cat. pl. Columb. 58.)

Sp. 89. EUPATORIUM AROMATICUM. Linn.

Com. name—Fragrant Eupatorium. Flowers very white, resembles the last.—Aug. Sept.

A very pretty species, and doubtless possesses the properties of 88.

Sp. 90. ERIGERON BELLIDIFOLIUM. Muhl.

Com. name—Robins Plantain.

Rays (about 50) bright blueish purple, common.—May.

Bitterish, pungent, diuretic. (Rafinesque.)

Sp. 91. SOLIDAGO RIGIDA. Linn.

Com. names—Rigid Golden Rod, Bones Styptic. Plant 2°—3° high. Heads large, yellow.—August, September.

Astringent, styptic, corroborant. (Riddell.)

Sp. 92. SOLIDAGO OHIOENSIS. (Ridd.)

Com. name—Ohio Golden Rod. Plant 2°—3° high, root leaves 1° long.—Aug. Sept.

Besides these, we have upwards of 20 other species of Golden rod, among which I have not a doubt, some will be found valuable.

Sp. 93. SILPHIUM TEREBINTHINACEUM. Linn.

Com. names—Prairie Burdock, Rosin Weed. Stem slender 1°—10° high, the thick root leaves 1°—2° long.—July, Sept.

Sp. 94. Silphium perfoliatum. Linn.

Com. names—Cup Plant, Turpentine Sun Flower. Stem 4°—6° high, leaves thin.—July.

These and some other species, yield a fragrant gum, which is stimulant and anti-spasmodic. (Griffith Med. Bot. l. c.)

Sp. 95. Ambrosia trifida. Linn.

Com. names—Great Ra Weed, Horse Weed, Wild Hemp. Coarse unsightly plant 4°—12° high.

Appears to be highly beneficial in arresting excessive salivation. (Griffith, Med. Bot. 387.)

Sp. 96. Echinacea purpurea. Mœnch.

Com. names—Purple Cone Flower, Black Sampson.—Flowers dull purple, rather handsome.—July.

Root thick, black, very pungent to the taste; aromatic and carminative, little known. (Riddell, West. Flor. 58.)

Sp. 97. Coreopsis trichosperma. Michx.

Com. name—Tick Weed Sunflower. Rays large, golden yellow.—September.

This and several other species of the genus, and the closely allied genus *Bidens*, yield a good deal of coloring principle.—The seeds are said to be alterative. In what cases they are indicated, I do not know. (Riddell, Syn. West. Flor. 59.)

Sp. 98. Aster cordifolius. Linn.

Com. name—Heart Leaved Aster. Rays pale blue, heads in great profusion, but quite small.—September.

Sp. 99. Aster puniceus. Linn.

Com. name—Rough Stemmed Aster. Stem 3°—6° high. Rays lilac-blue.—September.

The roots of these and several other species, are said to be aromatic and anti-spasmodic. They are very common plants, and more of their qualities should be known. (Griffith, Med. Bot. 387.)

Sp. 100. Artemisia biennis. Willd.

Com. name—Biennial Worm Wood.

Tonic and anthelmintic. Requires examination.

Sp. 101. Antennaria dioica. Gærtn. Syn. *Gnaphalium Dioicum.* Linn.

Com. name—Diœcious Everlasting.

Pectoral and demulcent. (Griffith, Med. Bot. 407.)

Sp. 102. Erechthites hieracifolia. Raf.

Com. names—Fire Weed, Ra Root. Syn. *Senecio Hieracifolius.* Linn.

Plant 1°—8° high, somewhat the aspect of a sow thistle; very common.—July, Sept.

Some diplomatized Quack, I see by the Eastern papers, is lauding this plant as an infalible specific in cholera. It is a very common and disagreeable weed. Rafinesque, (Med. Fl. 2nd, 262,) says in large doses it is emetic.

Vulnerary, acrid tonic, and astringent.

Sp. 103. NABALUS ALBUS. Hook. Syn. *Prenanthes Serpentaria.* Pursh.

Com. names—White Lettuce, Lion's Foot, Rattle Snakes Master, Rattle Snake Root. Stem tall (3°—7° high,) corymbose panicled at the summit; pappus deep cinnamon color; flowers greenish white.—Aug.

This and several other species of the genus, possess a reputation for curing the bites of Rattle snakes.—(Pursh.) The roots are also used in dysentery. (Griffith, 387.)

Sp. 104. HIERACIUM VENOSUM. Linn.

Com. names—Rattle Snake Weed, Veiny Hawk Weed.—Plant 1°—2° high; rays large, for the size of the head.—Aug.

This and other plants of the genus, of which we have several, are supposed to possess bitter, astringent and narcotic qualities. [Riddell, Syn. West. Fl. 47.]

Sp. 105. MULGEDIUM ACUMINATUM. D. C.

Com. name—Blue Lettuce. Syn. *Lactuca Villosus.* Jacq.

Biennial 3°—6° high; pappus bright white, flowers blue.—August.

Sp. 106. M. FLORIDANUM. D. C. Syn. *Lactuca Floridana.* Gærtn. *Sonchus Floridanus.* Linn.

Com. name—False Lettuce.

Biennial 3°—6° high; flowers blue.—Aug.

They have the reputation of curing the bites of Rattle snakes. From their close affinity to the officinal *Lactucas*, I have no doubt on examination, they will be found to possess narcotic and alterative qualities worthy of attention and use.

ORDER XXXI.—ERICACEÆ. [*Heath Family.*]

SUB ORDER I. VACCINEÆ. [*Whortleberry Family.*]

Sp. 107. GAYLUSSACIA RESINOSA. Torr. and Gr. Syn. *Vaccinium Resinosum.* Auct.

Com. name—Black Huckleberry. Shrub 1°—3° high.—Flowers reddish, tinged with green.—May, June. Fruit sweet and pleasant.

Sp. 108. VACCINIUM STAMINEUM. Linn.

Com. names—Buck Berry, Squaw Huckle Berry, Deer Berry. Shrub 2°—4°. Berries greenish.—May, June.

The leaves of these plants are astringent, and have been used in tanning leather. [Rafinesque, Med. Flor. 2nd, 272.]

Sp. 109. VACCINIUM MACROCARPON. Ait. Syn. *Oxycoccus Macrocarpus.* Pers.

Com. name—Common American Cranberry. Stems trailing 2°—3° long, corolla rose color. Berries light scarlet.

Wood and Bache, I believe, hardly mention these plants, yet the sweetened juice of these acidulous fruits, are peculiarly cooling and grateful, in nearly all our malarial and inflammatory fevers.

SUB ORDER II. ERICINEÆ. [*True Heath Family.*]

Sp. 110. RHODODENDRON MAXIMUM. Linn

Com. names—Great Laurel, American Rose Bay. Shrub 6°—20° high; leaves 4′—10′ long; very thick evergreen.—Flowers pale rose color, very ornamental.—July.

Stimulant and astringent according to Bigelow, Barton and Griffith. Rafinesque says the bark increases the heat of the body, excites thirst, and increases the secretions and excretions. Used for rheumatism and gout by the Indians. [Med. Flor. 256.]

SUB ORDER III. PYROLEÆ. [*Winter Green Family.*]

Sp. 111. CHIMAPHILA MACULATA. Pursh. Syn. *Pyrola Maculata* Linn.

Com. names—Spotted Pipsiseway, Spotted Wintergreen, White Pipsiseway, King Cure, Ground Holly, Rheumatism Weed.—June, July.

This plant grows abundantly on our hills, and is a good substitute for *C. Umbellata.* Griffith, [Med. Bot. 423,] remarks that there is a popular prejudice against this plant, so much as to render the belief of its poisonous properties prevalent, and he also asserts that Dr. Mitchell thinks that it is wholly inert. Both of these prejudices are unfounded, for I have used it freely, and believe it equal in every respect to its elegant congener, which is not by any means too highly lauded.

SUB ORDER IV. MONOTROPEÆ. [*Indian Pipe Family.*]

Sp. 112. HYPOPITHYS LANUGINOSA. Nutt.

Com. name—American Pine Sap, False Beech Drops, Birdsnest. Plant 4′—10′ high, velvety.—June, Aug.

Equivalent of *Monotropa.*

Sp. 113. MONOTROPA UNIFLORA. Linn.

Com. names—Indian Pipe, Ice Plant, Nest root, Fit root, Pipe plant. Stem 4′—8′ high. Stem, leaves and flowers, all white.—June, Aug.

Said to be ophthalmic and nervine. A teaspoonful of the dried root powdered is used in epilepsy and convulsions of children; often united to *valerian*. [Rafinesque, 243.]

ORDER XXXII.—AQUIFOLIACEÆ. [*Holly Family.*]

Sp. 114. ILEX OPACA. Ait.

Com. name—American Holly. Tree 20°—40° high, evergreen; red.—June.

Powerful diuretic; much used in domestic practice. [Rafinesque Med. Flor. 2nd vol. 8.]

Sp. 115. PRINOS LÆVIGATUS. Pursh.

Com. name—Smooth Winter Berry. Shrub 4°—8° high; leaves thin 1′—2′ long.—June.

These plants with the *P. Verticillatus*, are frequently used in domestic practice. They appear to be active in their properties; but little however, is known of them in the profession.

ORDER XXXIII.—PRIMULACEÆ. [*Primrose Family.*]

TRIBE I. PRIMULÆ. [*Primrose Family.*]

Sp. 116. LYSIMACHIA QUADRIFOLIA. Linn.

Com. names—Four-leaved Loose Strife, Crosswort. Plant perennial 1° high.—June.

Sub astringent, stomachic, expectorant; used in tea for colds, coughs and agues, &c. [Rafinesque Med. Flor. 2d, 240.]

ORDER XXXIV.—BIGNONIACEÆ. [*Trumpet Flower Family.*]

Sp. 117. CATALPA BIGNONIOIDES. Walt.

Com. names—Catawba, Indian Bean. Cultivated ornamental tree, 20°—40° high.—July.

Said to have a vermifuge bark and emetic wood. A decoction of the pods has been recommended in pectoral complaints, and the dried seeds smoked like tobacco, have proved useful in asthma. [Griffith, Med. Bot., l. c.]

Sp. 118. TECOMA RADICANS. Juss. Syn. *Bignonia radicans.* Linn.

Com. names—Trumpet Creeper, Trumpet Flower, Virginian Creeper. Woody vine, climbing to the tops of trees by rootlets. Flowers orange and scarlet, showy.—July.

Leaves acrid, depurative, mild, equivalent of *Stillingia.*—[Rafinesque, 267.]

ORDER XXXV.—SCROPHULARIACEÆ. [*Figwort Family.*]

TRIBE I. ANTIRRHINIDEÆ. [*Snap Dragon Tribe.*]

Sp. 119. SCROPHULARIA NODOSA. Linn. Syn. *Scrophularia marilandica.* Linn. *S. Lanceolata.* Pursh.

Com. names—Common Figwort, Holmes Weed, Heal All.

Stem tall; 3°—8° high; 4-sided. Flowers small, greenish purple.—July.

This plant and its synonymes, have heretofore been considered distinct, even by Linnæus himself. By our latest and best authors, however, they are decided to be identical. Consequently what has been said of the foreign plant, will apply equally to this. It enjoys considerable reputation in domestic practice.

Sp. 120. CHELONE GLABRA. Linn.

Com. names—Turtle Head, Snake Head, Balmony, Shell Flower. Perennial 1°—4° high. Flowers rose color or purple.—July, September.

Griffith says if it possesses the qualities attributed to it by Rafinesque, it will prove a valuable addition to the Materia Medica.

According to Rafinesque, it is a powerful tonic, cathartic, hepatic, and anti-herpetic. The whole plant may be used, but the leaves are best. In small doses it is laxative, but in full doses it purges the bile, removing the yellowness of the skin in jaundice, &c. Dose of the powdered leaves 3i. 3 times daily. [Med. Flor. Vol. II. p. 118.] Thompsonians use it.

Sp. 121. GRATIOLA AUREA. Muhl.

Com. name—Golden Hedge Hyssop. Stems creeping at the base. Flowers golden yellow; handsome.—June, Sept.

Said to be equal, if not superior to the officinal *Gratiola* of the shops. Not used in this country, but certainly deserves attention. [Griffith.]

TRIBE II. RHINANTHIDEÆ. [*Yellow Rattle Tribe.*]

VERONICA PEREGRINA. Linn.

Com. names—Neck weed, Purslane Speed well. Cultivated grounds, common, naturalized. Flowers whiteish.—Apl. June.

It is given internally, and used externally as a wash in scrofulous tumors of the neck in some parts of the U. S.—[Griffith.] We have several other species that will be found in our books.

ORDER XXXVI.—LABIATEÆ. [*Mint Family.*]

The presence of an aromatic oil and a bitter principle, are universal features of this order, upon which depend their tonic, cordial, and stomachic qualities.

Sp. 123. BLEPHILIA HIRSUTA. Benth.

Com. names—Ohio Horse Mint, Hairy Horse Mint. Perrennial 2°—3° high, corolla pale, with darker purple spots.—July. Thought to be equivalent of *Monarda Punctata.*

Sp. 124. PYCNANTHEMUM INCANUM. Michx.

Com. names—Common Mountain Mint, Wild Basil Perennial plant 2°—4° high; corolla whiteish.—Aug.

Sp. 125. PYCNANTHEMUM LINIFOLIUM. Pursh.

Com. name—Virginian Thyme. Plant 2° high.—July.
Small dense heads.

Smell of these plants very fragrant; taste intermediate between that of *Penny-royal* and *Spearmint*. Used medicinally by the inhabitants of Sandusky plains. [Riddell.] I should think they were superior to many other Labiates.

Sp. 126. LYCOPUS SINUATUS. Ell.

Com. names—Water Horehound, Gypsey weed, Paul's Betony. Stem perennial, smoothish, 1°—2° high; flowers densely clustered.—Aug.

This and the *L. Virginicus*, grow abundantly with us. In 1828, Rafinesque, [Med. Flor. Vol. II pp. 26–30,] gave a good account of these herbs, indicating their properties, and the diseases in which they are peculiarly indicated. With the exception of a few physicians, who have used and recommended them, they have remained in obscurity, until Dr. Davis published an account of *L. Virginicus* in the Proceedings of the National Medical Association for 1848. Nothing new with regard to its applicability to particular pathological states was added by Dr. Davis. He deserves credit, however, for resuscitating an American plant, which promises to rival, or even supersede the far-famed *Digitalis*. The sensible properties of *L. Sinuatus* correspond with the *L. Virginicus*, and from the trials I have made with it, believe it equal. In some respects it may be superior. It deserves at any rate to have its medicinal relations exactly fixed.

Sp. 127. SCUTELLARIA CANESCENS. Nutt.

Com. name—Hoary Skull Cap. Plant 2°—3° high; flowers blue, in terminal racemes; panicled, hoary.—July.

This and several other species, are said by Riddell to possess good diaphoretic properties. [Synop. West. Flor. p. 80.]

Sp. 128. LEONURUS CARDIACA. Linn.

Com. name—Motherwort. Perennial 2°—5° high; corolla bearded, pale purple. Naturalized; waste places, around houses.—July, Sept.

Stimulant and pectoral. Used for coughs and catarrhs.—[Rafinesque 236.] Dr. Brocket in the *West. Lancet*, has given an account of it.

Sp. 129. LAMIUM AMPLEXICAULE. Linn.

Com. names—Dead Nettle, Henbit. Annual herbs, decumbent; corolla purple. Naturalized, waste places.—May, Oct.

Said to be corroborant, cephalic, sudorific and laxative.—(Rafinesque, Med. Flor. 235.)

ORDER XXXVII.—POLEMONIACEÆ. (*Greek Valerian Family.*)

Sp. 130. POLEMONIUM REPTANS. Linn.

Com. names—False Jacob's Ladder, Greek Valerian, Sweat Root. Perennial, low branching, but not creeping; flowers nodding, blue.—May.

I have known this plant used as an expectorant in domestic practice. Riddell says the steam doctors use it as sudorific.—(Syn. West. Flor. 68.)

ORDER XXXVIII.—CONVOLVULACEÆ. (*Scammony Family.*)

Sp. 131. CONVOLVULUS ARVENSIS. Linn.

Com. name—Bind Weed. Stem procumbent or twining.—A troublesome naturalized weed.—June.

This, with several other species are common, and belong to an active family.

Sp. 132. CUSCUTA GLOMERATA. Chois and C. CHLOROCARPA. Engl.

Com. name—Dodder, American Dodder.

Leafless annual herbs, with reddish or yellow thread like twining stems, at length parasitic.

These, and several other species of the genus, have very generally been confounded under the term of *C. Americana.*

Rafinesque says they are bitterish, sub-astringent, stomachic, febrifuge and anti-scrofulous. Useful in decoction for agues and scrofula. (Med. Flor., Vol. II, p. 214.)

ORDER XXXIX.—GENTIANACEÆ. (*Gentian Family.*)

Sp. 133. GENTIANA QUINQUEFLORA. Lam.

Com. name—Five Flowered Gentian. Annual, 1°—2° high; corolla light purplish-blue; 1′ long nearly.—Aug. Sept.

Sp. 134. GENTIANA CRINITA. Frœl.

Com. name—Fringed Gentian. Biennial? Plants 1°—2° high; corolla sky-blue, 2′ long, showy.—Sept.

Both highly tonic, but much neglected plants.

ORDER XL.—ASCLEPIADACEÆ. (*Milk Weed Family.*)

Sp. 135. ASCLEPIAS SULLIVANTII. Englm.

Com. names—Smooth Milk Weed, Silk Weed. 3°—4° high.—July.

Very much resembles *A. Cornuti* Decaisne, which has hitherto passed for *A. Syriaca*, L. Doubtless often mistaken for it, and possessing similar virtues.

Sp. 136. ACERATES LONGIFOLIA. Ell.

Com. name—Long-leaved Green Milk Weed. Perennial plants 1°—2° high; flowers greenish, tinged with yellow and purple.—June, July.

Resembles *Asclepias*. We have many species belonging to this rather active order, which I think will amply repay scientific investigation.

ORDER XLI—OLEACEÆ. (*Olive Family.*)

Sp. 137. FRAXINUS AMERICANA. Linn.

Com. name—White Ash. Large forest tree. Leaflets 7—9 stalked.—April, May.

Sp. 138. FRAXINUS QUADRANGULATA. Michx.

Com. name—Blue Ash. A large tree; leaflets 5—9. Timber valuable.

According to Rafinesque and Griffith, the barks of these and others of the genus, are bitter and astringent, and formerly, were much employed in the treatment of intermittents. They are said also, to remove splenic enlargements. (Riddell.)

ORDER XLII.—POLYGONACEÆ. (*Knot Weed Family.*)

Sp. 139. POLYGONUM VIRGINIANUM. Linn.

Com. names — Wand-spiked Persicaria, Virginian Bistort. Stem angled, upright 2°—4°. Spike 10′—20′ long.—August. Astringent, diuretic, sub-tonic, &c.

Besides this, and those well known in our Dispensatories, we have eight or ten species, some of which are doubtless superior equivalents.

Sp. 140. RUMEX VETICILLATUS. Linn.

Com. name—Swamp Dock. Stem 2°—4° high. Grain ⅓ to ½ the width of the valve.—June, July.

We have also, nearly all that are spoken of in our Dispensatories. They are acquiring so much reputation, as to become introduced into Quack nostrums. Patient investigation will determine their good qualities.

ORDER XLIII.—SANTALACEÆ. (*Sandal Wood Family.*)

Sp. 141. COMANDRA UMBELLATA. Nutt.

Com. name—Bastard Toad-flax. Low (8′—10′ high.) Perennial herb, and greenish white flowers.—May, June.

Used for fevers by the Algic tribes. (Rafinesque 2d, 212.)

ORDER XLIV.—LORANTHACEÆ. (*Mistletoe Family.*)

Sp. 142. VISCUM FLAVESCENS. Pursh.

Com. name — Yellowish Mistletoe. Shrubby, parasitic plants, on the trunks of old trees.—April.

Given in tea or powder for epilepsy, vertigo, pleurisy dysentery, &c. By no means inert, although now neglected.—(Rafinesque, Med. Flor. Vol. II, p. 275.)

ORDER XLV.—ULMACEÆ. (*Elm Family.*)

Sp. 143. CELTIS OCCIDENTALIS. Linn.

Com. names—Sugar-berry, Hack-berry. A large tree, with the aspect of an *elm;* drupes as large as bird cherries.—May.

Rafinesque says the bark is anodyne and cooling. The berries sweet and astringent. Useful in dysentery. (Med. Flor. Vol. II. 206.)

ORDER XLVI.—SAURURACEÆ. (*Lizzard's Tail Family*)

Sp. 144. SAURURUS CERNUUS. Linn.

Com. name—Lizzard's Tail. A perennial marsh herb 1°—1½° high; flowers white. Spike 3′—6′ long, drooping at the end.—June.

Rafinesque says it is useful in lumbago. (Med. Flor. 261.) Little else known of it.

ORDER XLVII.—EUPHORBIACEÆ. (*Spurge Family.*)

Sp. 145. EUPHORBIA MACULATA. Linn.

Com. names—Spotted Spurge, Milk-purslane. Annual, prostrate herbs.—June, Sept.

Sp. 146. E. HYPERICIFOLIA. Linn.

Com. name—Larger Spotted Spurge. Resembles the preceeding, but larger in all its parts.—July, Sept.

These are very common plants, and belong to a well known active Family, and I believe if properly investigated, would be found useful in a variety of diseases.

Sp. 147. ACALYPHA VIRGINICA. Linn.

Com. name—Three Seedded Mercury. A homely weed 1°—2° high; common.—Aug.

Expectorant, diuretic.—(Riddell, Syn. West. Flor. 30.) Little also is known of it.

ORDER XLVIII.—JUGLANDACEÆ. (*Walnut Family.*)

Sp. 148. JULGLANS NIGRA. Linn.

Com. name—Black Walnut. Large, well known, valuable tree,—May. Fruit, Oct.

Leaves may be substituted for *J. regia*. Fleshy pericarp; acrid, stimulant. Good in herpetic eruptions.

ORDER XLIX.—SALICACEÆ. (*Willow Family.*)

Sp. 149. SALIX ALBA. Linn. Syn. *S. Viellina.* Smith.

Com. name—White Willow. Introduced, 50°—80° high.—May, June.

Sp. 150. SALIX HUMILIS. Marshall.

Com. names—Low Bush Willow, Speckled Willow. Shrub 3°—8° high; catkins appearing before the leaves.

It is pretty well decided, that *Salicine* is not an equivalent of *Quinine*, and I can readily imagine, that in our anxiety to discover a cheap substitute for Quinine, in this and other substances, we may overlook qualities, valuable, if properly directed.

Sp. 151. POPULUS CANDICANS. Ait.

Com. name—Balm of Gilead Poplar. A large tree. Aments long and drooping; appearing before the leaves.

We have four or five species of these trees, and from the fact of their yielding *Salicine*, as well as a peculiar principle termed by Braconnot *Populine*, I think they deserve more extensive and accurate observations.

ORDER L.—URTICACEÆ. (*Nettle Family.*)

TRIBE I.—MOREÆ. (*Mulberry Tribe.*)

Sp. 152. MORUS RUBRA. Linn.

Com. names—Black Mulberry, Wild Mulberry. A small tree, ripening its blackberry like fruit in July. Flowers frequently diœcious.—May.

Bark, vermifuge. Said by Rafinesque to expel tænia.—(Med. Flor. Vol. II. p. 243.)

TRIBE II.—URTICEÆ. (*Nettle Tribe proper.*)

Sp. 153. PILEA PUMILA. Gray.

Com. names—Cool-weed, Rich-weed. Plant 4′—18′ high, annual; the smooth stems pellucid.—July, Sept.

As a wash, they cure the topical poison of Rhus. Its peculiar, grateful strong smell, indicates other properties. (Rafinesque, Med. Flor. 2, 186.)

Sp. 154. PARIETARIA PENNSYVANICA. Muhl.

Com. name—American Pellitory. A small, homely, annual weed.—June, Aug.

Juice or decoction used as diuretic, deobstruent, menagogue, in gravel, nephritis, suppressions and obstructions.—(Rafinesque, Med. Flor. 2d, 250.)

ORDER LI.—ARACEÆ. (*Indian Turnip Family.*)

Sp. 155. PELTANDRA VIRGINICA. Raf. Syn. *Arum Virginicum.* Linn. *Lecontia.* Torr. *Rensselæria.* Beck.

Com. names—Arrow Arum, Taraho, Wampee. Fresh roots and seeds; acrid, pungent, stimulant. Equivalent to *Arum.* —(Rafinesque, Med. Flor. 2d. 257.)

ORDER LII.—TYPHACEÆ. (*Cat-tail Family.*)

Sp. 156. TYPHA LATIFOLIA. Linn.

Com. names—Common Cat-tail, Reed Mace. Stem 4°—5° high; leaves as long. Flowers in a long and very dense cylindrical spike.—July.

Sp. 157. SPARGANIUM RAMOSUM. Hudson.

Com. name—Great Burr-Reed. Stem 2° or more high.—Flowers collected in separate dense spherical heads.—July, August.

Roots, sub-astringent, febrifuge, esculent, yielding a fine fecula, similar to *Salep.*—(Rafinesque, Med. Flor. 2d. 270.)

I have known the roots made into a poultice for inflamed breasts used with success.

ORDER LIII.—ALISMACEÆ. (*Water Plantain Family.*)

Sp. 158. SAGITTARIA VARIABILIS. Englm.

Com. name—Arrow-head, Arrow-leaf, Wapata of Oregon.

Esculent, yielding fecula like *Arrow root.* Roots, refrigerant, sub-astringent; useful, applied to feet for yaws, and dropsical legs. Leaves applied to breasts, dispel milk of nurses, like *Ricinus.*—(Rafinesque, Med. Flor. 2d. 259.)

ORDER LIV.—ORCHIDACEÆ. [*Orchis Family.*]

TRIBE I.—MALAXIDEÆ.

Sp. 159. APLECTRUM HYEMALE. Nutt.

Com. name—Putty root, Adam and Eve. Scape 1° high; leaf, large, oval; many, nerved and plicate. Flowers, dingy, greenish-purple.—May, June.

Yields a very viscid juice when inspissated by boiling, good cement for glass.

TRIBE II.—OPHRYDEÆ.

Sp. 160. PLATANTHERA ORBICULATA. Lindl.

Com. name—Large Round-leaved Orchis. Scape 1°—2° high. Flowers, pedicelled, spreading, greenish-white.—July.

Leaves large, soft and fleshy, forming an excellent dressing for blisters.

TRIBE III.—ARETHUSEÆ.

Sp. 161. ARETHUSA BULBOSA. Linn.

Com. name—Arethusa. Flower 1′—2′ long, very handsome. Bruised bulbs, useful for toothache, and in cataplasms for tumours.—[Shœpf.] [Rafinesque.]

TRIBE IV.—NEOTTIAÆ.

Sp. 172. GOODYERA PUBESCENS. R. Br.

Com. names—Rattlesnake Plantain, Net Wort, Net Leaf, Scrofula Weed.

Used by empirics in scrofula, internally in decoction, externally by cataplasm.—(Rafinesque.)

TRIBE V.—CYPRIPEDEÆ.

Sp. 163. CYPRIPEDIUM PUBESCENS. Willd.

Com. name—Larger Yellow Lady's Slipper. Stem 2° high; flower scentless.—May, June.

Sp. 164. C. SPECTABILE. Swartz.

Com. name—Showy Lady's Slipper. Stem 2° high. Stout, very leafy. Lip 1½′ in diameter; the most beautiful of the genus.—July.

Sp. 165. CYPRIPEDIUM ACAULE. Ait.

Com. names—Stemless Lady's Slipper, Moccasin Flower, Nervine. Downy; scape, 8′—12′ high; lip, purple, sometimes pale. 2′ long, veiny.—May, June.

Roots, employed by Indians and Steam doctors, under the name of *nervine*, as a sedative and anti-spasmodic, in hysteria chorea, and kindred diseases. Supposed to act like *Valerian*. I have, however, seen it administered frequently, but could never detect the slighest appreciable effect whatever.

ORDER LV.—AMARYLLIDACEÆ. (*Amaryllis Family.*)

Sp. 166. HYPOXYS ERECTA. Linn.

Com. name—Star-grass. Scape 4′—6′ high, 1—4 flowered, yellow; leaves, grass like.—July.

Root edible, vulnerary and febrifuge. Used in chronic ulcers and agues.—(Rafinesque, Med. Flor. Vol. II. p. 230.)

ORDER LVI.—IRIDACEÆ. (*Flower De Luce Family.*)

Sp. 167. IRIS LACUSTRIS. Nutt.

Com. names—Dwarf-flag, Dwarf Lake Iris. Plants perennial, 3′—4′ high in blossom, pale-blue.—May.

Cathartic, diuretic and astringent. See *I. versicolor* for which it is equivalent.

Sp. 168. SISYRINCHIUM BERMUDIANUM. Linn.

Com. name—Blue-eyed Grass, Lily Grass, Physic Grass, Scurvy Grass. Low, slender, perennial; flowers small delicate blue, changing to purplish 4—6 opening in succession.—June, August.

Used by Thompsonians as a purgative. Root, yellow; acrid, decoction purgative.—(Rafinesque, 2d. 264.)

ORDER LVII.—DIOSCOREACEÆ. (*Yam Family.*)

Sp. 169. DIOSCOREA VILLOSA. Linn.

Com. name—Wild Yam Root. Plant herbaceous, twining, slender vine; flowers, very small, pale greenish yellow·—July.

"An infusion of the roots, is unquestionably a valuable remedy in bilious colic. An ounce of the powdered root is to be boiled in a pint of water and half of it given at once. It acts with remarkable promptitude. I have been informed that Dr. Millar, of Neville, Ohio, values the tincture highly, as an expectorant. He says it is also diaphoretic, and in large doses emetic."—(Riddell, Synopsis West. Flor. 91.)

ORDER LVIII.—SMILACEÆ. (*Sarsaparilla Family.*)

SUB-ORDER I.—SMILACEÆ. (*True Sarsaparilla Family.*)

Sp. 170. SMILAX GLAUCA. Walt. Syn. *Smilax Sarsaparilla.* Wild·

Com. names—Glaucus Green-brier, American Sarsaparilla. Shrub, climbing by tendrils sparingly prickly ; branches terete; flowers greenish.—June.

Sp. 171. S. PSEUDO-CHINA. Linn.

Com. name—Sarsaparilla. Climbing shrub ; stems and branches terete, unarmed ; leaves strongly 5-nerved.—June?

These, with the *S. Rotundifolia* and *S. Quadrangularis*, are natives of Ohio, and are said to be equal in every respect to the foreign article of which so much is used, (empirically and otherwise,) at this time.

SUB-ORDER II.—TRILLIACEÆ. (*Trillium Family.*)

Sp. 172. TRILLIUM ERECTUM. Linn.

Com. names—Purple Trillium, Birth-root. Low, perennial herb bearing at the summit a whorl of 3 broadly ovate leaves; flower terminal, greenish white.—May.

Sp. 173. TR. GRANDIFLORUM. Salisb.

Com. name—Large White Trillium. Flowers large, white; changing with age to rose color.—June.

Besides these, we have several other species of the genus. Rafinesque speaks highly of them, and considers them "as-

tringent, restringent, pectoral, tonic, anti-septic, alterative," &c.—(Med. Flor. 2d. 102.) Lindley says that De Candolle accounts the roots violently emetic, [Nat. Syst. Bot. 276.] while Riddell affirms, that Dr. Beach regards them as astringent, pectoral, tonic, anti-septic and alterative. It is evident that Beach has borrowed from Rafinesque all he knows of them. They deserve a proper investigation at our hands.

Order LIX.—LILIACEÆ. (*Lily Family.*)

Sub-order I.—ASPHODELIÆ. (*Asphodel Tribe.*)

Sp. 174. Scilla esculenta. Ker. Syn. *Phalangium Esculentum.* Nutt.

Com. names—Eastern Quamash, Wild Hyacinth. Scape, 1°—1½° high; leaves, long linear keeled; sepals spreading, pale-blue, 3-nerved. May.

Onion sweet. Famous as an article of diet among the western Indians. Rafinesque says it makes a fine bread, tasting like pumpkin bread. Makes a fine emollient poultice for inflamed breasts —[Med. Flor. Vol. 2d. 255.]

Sp. 175. Allium tricoccum. Ait.

Com. name—Wild Leeks, Ramps. Scape, naked, 9′ high; leaves in early Spring, decaying before flowering; sepals, white.—July.

We have two or three other species, which may probably be used as substitutes for the officinals.

Order LX.—MELANTHACEÆ. (*Colchicum Family.*)

Sub-order I.—UVULARIÆ. (*Bell-wort Family.*)

Sp. 176. Uvularia perfoliata. Linn.

Com. name—Smaller Bell-wort. Stems from small perennial, root stalks; flowers pale yellow, nodding lily like.—May, June.

Root, sub-acrid when fresh, with fine mucilage. Decoction of the plant useful in sore mouth, inflamed larynx and gums. Said to cure the bites of Rattlesnakes.—[Rafinesque, Med. Flor. 2d. 272.]

Sub-order II.—MELANTHIEÆ. (*True Colchicum Family.*)

I have ventured to put down all our western plants of this Family, as they are according to Lindley, acrid and poisonous in every species.—[Nat. Syst. Bot. 270.] It is very probable, also, that the active principle upon which *Colchicum* depends for its virtues, resides in some of them. For these reasons I think they deserve the special attention of our Faculty.

Sp. 177. ZYGADENUS GLAUCUS. Nutt.

Com. name—Smooth Zygadene. Perennial; stems, naked above, 1° high; leaves, grass like; flowers greenish-white.—July. Rare.

Sp. 178. MELANTHIUM VIRGINICUM. Linn.

Com. names—Quafidil, Melanthium. Perennial; stem 3°—4° high; leaves, grass like; flowers, cream colored, about ¼′ broad.—July.

A sure but violent remedy for itch. [Raf. 2d. 242.]

Sp. 179. VERATRUM VIRIDE. Ait.

Com. names—American Hellebore, Itch-weed, Indian Poke, Earth-gall, Wolfbane. Stem, stout, very leafy to the top, 2°—4° high; perianth, yellowish-green.—June.

Root, very poisonous, Gray, (Bot. North. U. S. 500.) Acrid, emetic, powerfully stimulant, followed by sedative effects.—(Riddell.) (Raf. Med. Flor. 2d. 273.)

Sp. 180. STENANTHIUM ANGUSTIFOLIUM. Gray. Syn. *Veratrum Angustifolium.* Pursh.

Com. name—Grass-leaved Veratrum. Wand-like, leafy, slender stem, 2°—6° high; flowers, small white.—July.

Sp. 181. CHAMÆLIRIUM LUTEUM. Gray. Syn. *Veratrum Luteum.* Linn. *Helonias Lutea.* Ait. *Helonias Dioica.* Pursh.

Com. names—Devil's-bit, Blazing Star. Perennial, wand-like stem; flowers, small, yellowish on a wand-like spike, at length 6′—10′ long.—June.

Acrid medicinal. An infusion of the root is anthelmintic. The tincture is tonic. (Riddell, West. Flor. 188.)

Sp. 182. TOFEILDIA GLUTINOSA. Willd.

Com. name—False Asphodel. Slender, perennial; stem 1° high; flowers, greenish-white.—June.

ORDER LXI.—PONTEDERIACEÆ. (*Pickerel Weed Family.*)

Sp. 183. PONTEDERIA CORDATA. Linn.

Com. names—Pickerel Weed, Shovel-leaf, Water Plantain. Stout herbs, growing in shallow water; scape, 1-leaved, terminated by a spike of violet-blue ephemeral flowers.—May, Sept.

The roots are emollient, restringent and anti-scrofulous; leaves form an excellent cooling topical application for inflammations on the surface. It may be employed in gleets, leucorrhœa, fluxes, and externally for scrofulous tumors and sores. (Raf. Med. Flor. 2d. 108.)

ORDER LXII.—COMMELYNACEÆ. (*Spider Wort Family.*)

Sp. 184. COMMELYNA VIRGINICA. Linn.

Com. name—Day-flower. Stems, perennial, upright, smooth; petals, blue; leaves, 5′—7′ long, 1′—2′ wide.—July.

Sp. 185. TRADESCANTIA VIRGINICA. Linn.

Com. name—Spider's Wort. Stems, perennial mucilaginous; leaves keeled grass like; flowers in umbelled clusters; blue.—May, Aug.

Roots, anti-febrile, emollient, pectoral and anodyne. (Raf. Med. Flor. 2d. 212.)

ORDER LXIII.—XYRIDACEÆ. [*Yellow-eyed Grass Family.*]

Sp. 186. XYRIS BULBOSA. Kunth. Syn. *X. Indica.* Pursh. *X. Caroliniana.* Flor. Lan.

Com. name—Yellow-eyed Grass. Leaves, 1½′—8′, the scape 3′—14′ high. Petals minutely toothed at the summit, yellow.—July, Sept.

Roots and leaves used against lepra, and diseases of the skin by Hindus. [Raf. 3d. 276.]

ORDER LXIV.—GRAMINEÆ. [*Grass Family.*]

Sp. 187. BROMUS CILIATUS. Linn. Syn. *B. Purgans.* Linn.

Com. name—Brome Grass. Perennial culm, 3°—4° high. Said to be emetic, anthelmintic, &c., but doubted by Griffith, [Med. Bot. 663.] Rafinesque says it is sudorific, vermifuge, laxative, diuretic, menagogue, &c., and purges cattle. [Med. Flor. 2d. 202.]

Sp. 188. BROMUS MOLLIS. Linn.

Com. name—Soft Brome Grass. Biennial, sparingly naturalized.

Pareira, [Elm. Mat. Med. Vol. I. p. 122,] remarks that Loudon tells us that the seeds of this plant bring on giddiness in the human species and quadrupeds, and are fatal to poultry.—[Griffith, Med. Bot. 662.]

ORDER LXV.—EQUISETACEÆ. [*Horse-tail Family.*]

Sp. 189. EQUISETUM ARVENSE. Linn.

Com. name—Horse-tail. Fertile stems, never branching 8′—15′ high.—April.

Astringent, diuretic, &c. Used in hæmaturia, gonorrhœa, phthisis, &c. [Raf. 2d. 217.]

Order LXVI.—FILICES. [*Fern Family.*]

Sp. 190. Polypodium incanum. Willd.

Com. names—Polypody, Rock Brake. Fronds, oblong 2′—5′ high.—July.

Pectoral, demulcent, purgative and vermifuge. Equivalent of *P. Vulgare.*

Sp. 191. Pteris aquilina. Linnæus.

Com. names—Common Brake, Eagle Fern, Bracken. Frond ternate at the summit of an erect, stout stalk, 1°—2° high. Whole frond, 2°—3° wide.

I have frequently used this plant as a substitute for the *German male fern.* In one case where the patient believed she was subject to tape worm; and was troubled at the same time with a chronic cough, the *Pteris* acted like a charm in removing the cough after a great variety of other means had been unavailingly resorted to. I have often since, prescribed it with good results, where there was no evidence of inflammatory action. It is preferable to the foreign *Filix Mas,* which frequently comes to us in a much deteriorated state. The subterranean root stalk, which very much resembles the roots of *Sarsaparilla* in appearance, is the part I use.

Sp. 192. Asplenium felix-fœmina. R. Br.

Com. names—Spleen Wort, Female Fern. Fronds 2-pinnate, 1°—3° high, smooth.—July.

Sp. 193. A. Thelypteroides. Michx.

Com. name—Showy Spleen-wort. Fronds, pinnate; pinnæ, deeply pinnatifid, 1½°—3° high. A handsome, smooth fern.—July.

Sp. 194. Dryopteris thelypteris. Gray. Syn. *Aspidium.* Swartz. *Polypodium Thelypteris.* Linn.

Com. name—Winged Wood Fern. Frond, pinnate, pinnatifid; stalk 1° or more high. Slightly downy.—Aug.

Sp. 195. D. Noveboracensis. Gray. Syn. *Polypodium Noveboracense.* Linn. *Aspidum Thelypteroides.* Swartz.

Com. name—Northern Wood Fern. Frond, pale-green, delicate membranous; swamps.—July.

Sp. 196. D. Goldiana. Gray. Syn. *Aspidium Goldianum.* Hook.

Com. name—Goldie's Wood Fern. Frond, 2°—3° long; broadly ovate, pinnately parted; pinnales about 20 pairs.—A showy fern.—Sept.

Sp. 197. Cystopteris bulbifera. Bernh. Syn. *Aspidum Bulbiferum.* Swartz. *A. Atomarium.* Muhl.

Com. name—Bladder Fern. Frond, lanceolate, elongated. 1°—2° long; 2-pinnate; shaded, moist rocks.—July.

The four preceding species have been lately separated from *Aspidum*, the genus that yields the *male Fern* of the shops. They are equal in every degree I believe to the foreign article and should be attended to.

Sp. 198. Osmunda spectabilis. Willd.

Com. name—Flowering Fern. Frond 2-pinnate, ½°—4° high; very smooth; swamps, common.—July.

Sp. 199. O. Cinnamomea. Linn.

Com. name—Cinnamon Fern. Frond, pinnate, clothed with rusty wool when young, growing in large bunches, the fertile in the centre, 1°—2° high; swamps.—May.

Demulcent, sub-astringent, corroborant and discutient.—Gives a fine mucilage boiled in milk. Useful in diarrhœa, dysentery, cholera infantum, phthisis, &c. [Raf. Med Flor. 2d. 249.] Lindley, [Nat. Syst. Bot. 311.] mentions that they have been given in 3 drachm doses for rickets. I believe them to be useful, and should be more thoroughly and accurately investigated.

Order LXVII.—LYCOPODIACEÆ. (*Club Moss Family.*)

Sp. 200. Lycopodium lucidulum. Michx.

Com. name—Thick stemed Club Moss, Hog-bed, 6′—12′ high; spreading 2 or 3 times forked.—Aug.

Sp. 201. L. Complanatum. Linn.

Com. names—Common Club Moss, Ground Pine. Stems, extensively creeping; peduncles bearing 2—4 cylindrical spikes.—July.

The 2 species are equivalent. Diuretic, menagogue, drastic, nervine, alternant aperient and corroborant. Used in dropsy, gout, scurvy, diarrhœa, and suppressions; externally for tinea plica, &c., in infants; kills lice, and insects, &c. [Raf. Med. Flor. 2d. 240.] If the half of what Rafinesque says of them be true, some attention should be paid them.

Order LXVIII.—CHARCEÆ. [*Chara Family.*]

Sp. 202. Chara vulgaris.

Com. name—Water Feathers. Aquatic plants, with a fœtid small; among the most obscure of the vegetable kingdom.

According to Rafinesque, [Med. Flor. 2d. 207.] said to be anti-spasmodic and vermifuge, &c.

NOTE.

It is earnestly hoped that every Physician who receives this paper, either through the OHIO MEDICAL AND SURGICAL JOURNAL, or by means of an Extra, will consider himself specially invited to furnish to my address, at Lancaster, Ohio, new facts or suggestions with regard: 1st. To the properties of old, or well known articles of the Materia Medica.

2d. Articles, hitherto unknown, or little used; of practical utility in the Materia Medica. And

3d. Any thing new with regard to the Medical Botany of Ohio.

In compiling a report on Materia Medica and Medical Botany, to be presented to the OHIO STATE MEDICAL SOCIETY, which meets the first week of June, 1850, it will be necessary for me to have my materials by the 1st of April.

It shall be considered a sacred and inviolable duty, to give due credit to every individual who furnishes me with information deemed necessary to the Report.

Respectfully,

JOHN M. BIGELOW, M. D.

LANCASTER, OHIO, Oct. 20, 1849.

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ART. II.—*Retained Placenta.* By T. M. TWEED, M. D., of North Liberty, Ohio. An extract from a letter to P. J. BUCKNER, M. D.

That the actual *practice* of medicine does not correspond with the *theory*, as taught in the books, is an observation demonstrated to be true by the daily experience of every physician. It is one thing to sit in the closet, and dictate rules for the guidance of the young and inexperienced practitioner, and quite another, and different thing, to reduce those rules to practice. Especially is this true with regard to the department of Obstetrics. Take, for instance, the subject of *retained placenta.*

Dr. W. Tyler Smith, in the London Lancet for November 25th, 1848, remarks with reference to retained placenta from sphincteric contraction, as follows: "The longer the os uteri remains contracted, the more difficult will its dilatation, so as to admit of the extraction of the placenta, become. If the placenta can be felt close to the os uteri, gentle but firm traction of the cord, held as near as possible to its root on the placenta, should be used, so as to convert the placental mass into a dilator. If this plan should not be successful, the os uteri must be slowly dilated by the fingers, so as to admit the hand or fingers according as the placenta may be required to be detached, or merely withdrawn from the cavity."

The same general rule is laid down by all the standard authorities on Midwifery: and a very good one it is. But if you *cannot* dilate the os uteri, and thereby remove the placenta, then what? What say the authorities? Does Burns, or Denman, or Velpeau, or Meigs, or Smith suggest anything for the guidance of the young practitioner in such an exigency?—Not a word. Now, it is all very well to say, "dilate the os uteri slowly by the fingers," and it looks as if it might be very easily accomplished—in print; but you know, and I know, that while there are numerous cases where this is practicable, there are many others in which dilatation cannot be effected. I have seen cases of retention from spasmodic closure of the os uteri, in which dilatation was utterly and physically impossible. In such a case, if there be separation of the placenta, with inertia of the body and fundus of the uterus, what is to be done? Bleed, give tartar emetic and opium, says Meigs—treat the uterine inertia energetically *per se*, without any reference to the state of the os uteri, exclaims Dr. Smith. All very good recommendations, gentlemen, but if these means fail,

what next must be done? And here you leave the poor trembling accoucheur in the fog, bewildered and dispairing.

> "He feels like one who treads
> Some banquet hall deserted:"

And he mentally consigns the obstetric art, and all its authorities, to a hotter place than he occupies in the lying-in-chamber. To my unfortunate brother practitioners placed in such a situation, I would say: Be of good cheer—trust to the conservative powers of nature, and you shall not be disappointed.—But says Dr. Smith, "dangerous internal hemorrhage is inevitable." With profound respect for such high authority, permit me to say, that dangerous uterine hemorrhage will relax the spasm, and the delivery of the placenta may be accomplished. The flooding may then be arrested by the use of ergot, frictions, and the other remedies recommended in uterine hemorrhage. The proposition, then, that I wish to establish, is this: *That nature is competent for the expulsion of the placental mass.* To illustrate this proposition, permit me to relate a case.

August 5th, 1849, I was called to attend Mrs. P., aged 22, in labor with her first child. The membranes had been ruptured some six weeks previously, and the liquor amnii had been discharging daily since. Found the os tincæ dilated to the size of a dollar, but rigid and unyielding. Bled the patient freely which relaxed the os tincæ somewhat, and the labor progressed slowly. The head became impacted, but after nine hours of painful and difficult labor, my patient was delivered of a living and healthy child. After waiting a short time, as is my custom, for the expulsion of the placenta, I made gentle traction of the cord. Failing to remove the mass by this means, I passed my fingers along the cord as far as the os uteri, when I discovered that the placenta was retained by globular contraction of the uterus. The os tincæ was firm and unyielding, scarcely admitting the introduction of a finger. Nevertheless, remembering the precepts of the books, I undertook to accomplish its dilatation. Making firm traction of the cord with one hand, I introduced the other in the form of a cone, gradually and gently, (not, however, without great pain to the woman,) into the vagina, and finally, reaching the os uteri, I exerted as much force as was consistent with the integrity of the parts; but all to no purpose. I bled my patient freely, and renewed my efforts.—Still the os remained rigid and undilatable. I gave her opium and tartarized antimony, they effected nothing towards relieving the spasmodic stricture. In my extreme necessity and desperation, I gave ergot. No uterine contractions were excited, and things remained *in statu quo*. Nine hours had now

elapsed since the delivery of the child, and my patient and *patience* being nearly exhausted, I requested a consultation.—Dr. A. C. Lewis, of Winchester, a gentleman of considerable experience, came to my assistance. After using the catheter, he made repeated attempts to remove the placenta, but failed to accomplish it. And in this situation we left the poor woman, fully expecting that, if the books were true, she would die from internal hemorrhage, or consecutive inflammation.

Thirty-six hours after the delivery of the child, I again saw Mrs. P. Slight uterine pains having occurred, it was thought something might be done for her relief. Upon examination, I found the placenta embraced by the os uteri, which was soft and dilatable. In a few moments, to the joy of all, the mass was removed. No hemorrhage or inflammation followed, and my patient made a rapid recovery.

The foregoing case, I think, clearly establishes the following proposition: *That ordinary means having failed, and no alarming hemorrhage occurring, you may safely leave your patient, trusting hopefully to the vis medicatrix natura.* It is useless to persist in efforts to dilate the os uteri in such a case: you might as well attempt to dilate an auger hole in an oak plank.

Reserving some remarks upon hour-glass contraction of the uterus, for a future communication,

I am, my dear sir, very truly,
Yours, &c.,
T. M. TWEED, M. D.

PART SECOND.

AMERICAN INTELLIGENCE.

ART. I.—*On the Influence upon Health by the Introduction of Tea and Coffee in large proportion into the Dietary of Children and the Laboring Classes.* By SAMUEL JACKSON, M. D., Prof. of the Institutes of Medicine in the University of Pennsylvania.

Tea and Coffee enter more largely into the diet of the people of this country than into that of any other. The ordinary breakfast and supper of thousands of persons in every part of the United States, are tea, coffee, and bread; while tea, bread, and potatoes, with occasionally a modicum of meat, constitute their dinner. Even children, as soon as they are able to sit at meals, are habitually placed at the family table, and allowed to partake of the same as adults.

In the poorer classes, the evil of a common diet for all ages cannot probably be avoided. It is one of the causes productive of the greater mortality of the children of the poor. But this injurious practice, which with the poor is to be regarded as an inevitable misfortune, is followed by those who are placed in circumstances above the necessity of it. In them it is most condemnable, and can be excused only on the plea of ignorance.

The classes in which the kind of alimentation alluded to prevails, are female teachers, seamstresses, factory women, weavers, tradesmen, small retailers, clerks with families, and others living on restricted means, and very generally farmers in the country.

The inducement for its adoption is its economy, as to money, time, and fuel—a meal of coffee, or tea and bread, or the addition of potatoes, for a small family, will not cost beyond a few cents, while it requires but little fuel and a very short time for its preparation. Tea and coffee are, besides, very palatable, produce temporary exhileration and force, and abate hunger. Coffee, as will be shown, is not devoid of some nutritive properties. Ostensibly answering, in this manner, the purposes of food, tea and coffee have, from the considerations of cheapness and convenience, become the substitutes of more substantial diet.

[So far as our own experience is concerned, and we know of no other test by which to decide this matter, "economy as to money, time, and fuel" are *not* the inducements for the general use of tea and coffee by the classes adverted to, or any other. We know we are disputing high authority, and we do it with diffidence. Observation and experience teach us that the opposite is nearer the truth. The consumption of tea and coffee actually adds to the aggregate of our table expenses, and on this account the habit is a source of regret to the poorer classes of community every where. If this be not the fact, we, as well as many others, are laboring under a very great mistake. Again, we very much doubt whether less substantial food is taken into the stomach in consequence of using these articles. On the contrary, from the known exciting power of tea and coffee upon the nervous system, and particularly upon the stomach, we have been led to believe that the appetite is temporarily increased, and consequently *more* instead of *less* food, is taken, and that the digestive organs are absolutely embarrassed by over-distention, and that many of

the evils growing out of their use arise rather from repletion than starvation. So far as economy of time and fuel is concerned, we cannot comprehend how an hour or two each day spent in building fires, roasting coffee, and the passing through the several processes of preparing these popular beverages, instead of a resort directly to nature's beverage, cold water is a saving of either.

It strikes us that the temperature at which tea and coffee are drank, their agreeable impression upon the palate, and their exhilerating effects upon the nervous system, are the simple and principal reasons why they are employed so universally.—Ed.

In this country and England, chiefly, tea and coffee are introduced into the daily meals as aliment. In China, tea is used as a refreshing and cordial beverage, presented to visitors, or drunk between meals; in the East, coffee is regarded in the same light, and employed in the same manner; on the continent of Europe, coffee is extensively used, but more as a cordial drink, or to flavor cream and milk, than as aliment.

In prosecuting this inquiry with a view to the effects on the economy, of tea and coffee, some preliminary matters require previous examination.

Every one knows that food is indispensable to life. But what is this connection between them? How is it that food is an indispensable condition of life? The solution of these questions is necessary to the understanding of the nature and objects of food, to determine the value of any alimentary articles, and to settle the pretensions of any substance for a place in the category of food.

Before examining the relation existing between food and life-action, it is important to obtain an accurate idea of what is life, or organic action. This term we limit to a single series or class of phenomena. These phenomena are the evolution or production of specific organizable matter, and definite organic forms, from a primary formless organic substance. Albumen is that substance in man and the higher animals. All other phenomena are excluded. They are subordinate to, depend on, but are indispensable to maintain life-action.

Organized tissues and organs worked out by life action, are the instruments of life. They differ widely from each other. Each has its special office. The phenomena of each are special in character and purposes. They are the same as similar phenomena in the exterior and inorganic world. They can be properly understood and studied only in their connexion

with those phenomena. Some are chemical, as the transformation of albumen, the processes of digestion, secretion, and the oxidation of carbon and hydrogen in the blood producing animal heat. Others are physical, as the capillarity of tissues, imbibition, endosmose, atmospheric pressure, and Graham's law of the diffusion of gases, in respiration; others are dynamic, as the excitor, motor, and other forces of the nervous system; others, again, are purely mechanical, as the actions of the muscular system.

Not one of those is properly an organic or life-phenomenon. They are indispensable to maintain the condition of the existence of life, or organic action. They are chemical, physical, dynamic, and mechanical actions, executed by organized and living apparatus and instruments, for the objects of life.

The organizable matter and organic forms are the products, and, consequently, the expression of existing forces or causes of action. Forces, matter, and form, are indissolubly connected with, and give rise to, phenomena or function; and, inversely, function and phenomena, are the correlatives of force, matter, and form. Organized matter, from its nature, cannot be persistent. Under normal states, force, matter, form, and function or phenomena, are permanent; but the structural material itself is not permanent—it wastes, decays, disintegrates, and is reproduced in every act of life. Life-action is thus resolvable into two inseparable actions, or links of one action, a birth and a death, the formation and destruction of the organic material of our structure.

The supply of the primary organic substance for this incessant renewal and building up of the organized structure and maintenance of organic forms, is derived from the blood.—This fluid, in its natural state, is a concentrated solution of all the solids and products of the animal economy. The amount of azotized or albuminous compound matter destroyed in twenty-four hours by life, or organic action, may be taken, on an average, at two to three ounces.* The blood would rapidly become impoverished and unfitted for life objects, unless its losses of albumen and its organic derivatives were constantly restored. The renewal of the organizable or plastic material of the blood, and its maintenance in its normal composition, for structural formation, is one of the offices of our food. Repeated analyses have demonstrated that, of the aliment that is adapted to healthy nutrition, one-eighth part only consists of albumen, or its protein compounds, or their derivative compounds; and whatever is devoid of those substances—that is,

* Dumas, Chimie Physiologique et Medical, p. 463.

the chemical combination of carbon, hydrogen, nitrogen, and oxygen, in the proportion to constitute protein ($C_{40}H_{30}N_5O_{12}$*) or albuminous compound—cannot perform the office of food, or be fitted for nutrition.

Another condition, not less indispensable to life-action, than organizable or plastic matter in the blood, is a definite temperature. For man and the warm blooded animals, the heat essential to healthy, vigorous life-action is 98° to 100° F. So important is heat to life, that nature has made provision for its constant disengagement in the economy. This is accomplished by the incessant oxidation of carbon and hydrogen in the blood. The temperature of this fluid is thus kept at an equable point in every part of the economy. Every organized molecule requires, for the exciting and sustaining of its life-action, the presence of plastic or organizable material, and a definite temperature.

The blood furnishes both these indispensable conditions of life-action to each living molecule.

The carbon and hydrogen oxidized in the blood, and in this manner generating animal heat, are obtained from the food. Nature has made most ample provision for the supplies of these chemical elements, by constituting them a large portion of the food of animals. Not less than from six-sevenths to seven-eights of the alimentary substances of animals consist of non-azotized bodies. Fatty, starchy, and saccharine matters, are of this character; they are not adapted to or intended for nutrition, but solely for the purpose of calorification, by their combustion or combination with oxygen introduced into the blood by the process of respiration. This proposition is demonstrated in the composition of the alimentary portion of milk. The casein or plastic matter for nutrition, averages 13 per cent., the calorifacient, or the cream and sugar of milk, 87 per cent.

Temperature is required not only for life-action, but also for the dynamic forces, and mechanic power and actions seated in and performed by the muscular apparatus.

The identity of heat and mechanical force has been established by M. Joule.† It is expressed in the following formula; the heat required to raise one gramme (15 grains) of water one degree (cent.), is capable of raising 432 grammes (3700 grains) on metre, or 3½ feet.

According to the estimate of Dumas, the quantity of carbon consumed by a man in good health (valuing the hydrogen by an equivalent proportion of carbon), averages from seventeen

*Mulder. †Comptes Rendus, tome xxxv., p. 209

to twenty-eight ounces per diem. The large amount of heat thus disengaged, is the sum of the dynamic or excito-motor force of the nervous system.

By the establishment of the above facts, we obtain precise ideas of the nature of food, its objects in the economy, and the modes of its operation. We are enabled to say with certainty what substances are or are not food; and to fix the relative value of each article of diet.

From these investigations, it is ascertained that alimentary substances form two distinct classes, differing from each other by the most striking diversities of nature, composition, and operation.

The first class are the protein or albuminous compounds.—They have nearly the same chemical composition as the tissues, are isomeric with many of the immediate organizable materials of animal structure, and are exclusively destined to nutrition proper, or the reconstruction and repair of the solids.

No substance in which this especial chemical composition, protein and its compounds do not exist, can belong to this class, or can be employed in the economy for its nutrition.—Some of the most eminent organic chemists and physiologists appear to suppose, that any organic nitrogenized body may answer for nutrition. This is not so. Morphia, quinia, strychnia, urea, taurine, as well as theine, and caffeine, are organic nitrogenized bodies, yet cannot be ranked as food. It is the possession of the specific combination of which protein is the base, that can alone entitle any substance to rank in this class.

The second or calorifacient class of aliment, comprehends those special chemical compounds, hydro-carbons mostly, that are capable of prompt decomposition into carbon and hydrogen in the blood. No other organic substances, though rich in carbon and hydrogen, are capable of entering into this division of aliments.

The normal substances of this kind are glucose and lactic acid, into which saccharine and amylaceous substances are converted by the process of salivary digestion; and fatty matters, modified and reduced to the finest and minutest particles possible, in the emulsion formed with them by the pancreatic and biliary secretions.

This last class is the more immediately connected with the maintenance of life. It is established by the experiment of Chossat,* that death from starvation does not occur from inanition, or the waste of the organs, but from the cooling of the

* Recherches Experimentales sur l'Inanition, Paris, 1843.

blood, from the abscence of the carbon and hydrogen requisite to carry on the process of combustion and the generation of caloric.

With the preceding facts ascertained, we can now proceed to investigate the claims of tea and coffee, to be regarded as properly belonging to either of the above classes of food.

Theine and caffeine, according to Liebig, are the essential elements of tea and coffee. The two are identical as to chemical equivalents. The formula for each is C_8,H_5,N_2,O_2. M. Payen, in a later and more elaborate examination, gives a somewhat different formula, but not such as to vary their properties to any extent. Liebig considers them as closely approximating to alloxan, C_8,H_4,N_2,O_1, a principle obtained from urea, by the action of concentrated nitric acid; and to taurine (C_4,H_8,NO_{10}), a principle which may be obtained from ox bile, but not from human bile.

In this view, tea and coffee must be excluded wholly from the classes of aliments, to which theine and caffeine can have no pretensions.

But M. Payen, in 1846, in a communication to the Academie des Sciences,* presented a highly labored and accurate examination of the proximate constituents of coffee, which unquestionably brings it, at least, into the category of aliments, as it contains the constituents of both classes.

The following is his analysis of coffee:†

Cellulose	34
Fat Substances	10 to 13
Glucose, dextrine, and an indeterminate vegetable acid	15.5
Legumin, casein [gluten]	10
Chloroginate of caffeine and potassa	3.5 to 5
Azotized organic matter	3
Free caffeine	0.8
Insoluble concrete vegetable oil	0.001
Fluid aromatic essence of sweet ordour, and a less soluble acrid aroma	0.002
Mineral substances, potassa, lime, magnesia, phosphoric, sulphuric, silicic acids, and a trace of chlorine	6.697
Water	12
	100

From this comparison of coffee, it is evident the grain is endued with nutrient or plastic and calorifacient elements, and,

* Comptes Rendus, Tomes xxiii., 1846.
† Comptes Rendus, Tomes xxiii., f. 249.

consequently, is an aliment; yet the proportion of those elements is not sufficient to place it in a high rank in either class, or to justify the substitution of its infusion as a chief material of food, by those who are engaged in active and laborious pursuits.

But when the quality of the weak infusion almost generally used as food, and the consequent very small proportions of the alimentary elements held in solution in it are taken into consideration, the disparity between the waste of the blood and the elements for its reparation contained in coffee, become strikingly displayed. The ordinary coffee of the laboring and industrious classes, is little more than warm water colored and aromatized by coffee. It contains but a very small portion, if any, of the nutritive and calorifacient elements. It is impossible, with such diet, to maintain in the blood the two indispensable conditions of life-action and nerve force, organizable material and heat.

Coffee, to be prepared as food, should be first but slightly roasted, merely browned and rendered crisp, so as to be easily reduced to a coarse powder. A concentrated infusion is then to be made by the process of displacement. There should be added to it an equal, or double its quantity of cream or good milk, and be sweetened with sugar. An alimentary drink is thus prepared, possessing all the requisites of good food, with the addition of a specific excitant action on the nervous system and brain, that entitles coffee to the appellation bestowed on it by Rousseau, "boisson intellectuelle."

The ordinary miserable preparation of coffee so extensively used as food, deficient in proper alimentary principles, by taking away appetite, by distending the stomach with a warm liquid, and thus impairing its digestive power, and by its agreeable aroma corrupting the taste, rendering more nutritious food unpalatable, tends to the ultimate impoverishment of the blood. This fluid loses its proper character, that of a concentrated solution of all the organic elements and products of the economy.

As a consequence of this condition of the blood, the waste of the tissues exceeds the repair, death-action is stronger than birth-action; disintegration of structure predominates over its reformation. In time this loss of balance tells: the organs are degraded from their primitive type; their functions are impaired, and the organism descends in the scale of development.—There is an approach to inferior organisms, and to cold blooded animals; or, rather, the system is kept permanently in what constitutes the cold stage, or tendency to collapse in febrile diseases.

In this state, individuals suffer from a variety of vague anomalous symptoms, characterizing no definite disease. They are always ailing, complaining, suffering, but not absolutely sick. They are miserable themselves, a plague to doctors, the prey and victims of quacks.

In this condition of the economy, the temperature is low.—Dynamic force, which is identical with heat, is equally depressed; and, consequently, the mechanic or muscular power is at zero, and the offices of the economy depending on it are imperfectly performed. The circulation is feeble, digestive movements slow and defective; languor and exhaustion prevail.—Exercise augments the evils by expending the forces more rapidly than produced, and the nervous functions are in a state of perturbation or depression. These disordered states are the results of a slow inanition or starvation, not suspected, because food is taken to the full repletion of the stomach; yet still it is starvation, for the blood does not possess the elements for heat and nutrition adequate to the full energy and the consumption of life-action. These cases are not remediable by medicine; they can be relieved only by a restoration of the digestive functions, and a return to a wholesome and appropriate diet.

Cases of this character have augmented in our towns and cities, and it is believed in the country, particularly amongst women, and in the industrious and laboring classes, in the last ten or fifteen years most rapidly. The neuroses, as gastralgia, different visceralgias, and other forms of neuralgia, are now quite as common amongst those classes, if not more so, than they were formerly amongst the luxurious and idle, to which they were almost exclusively confined.

A suspicion has arisen that this circumstance is to be attributed to the perversion of the use, as food, of tea and coffee, from their proper employment as nervous excitants and cordials, which are their appropriate properties. On inquiry it is almost uniformly found, at least, in the observations of many medical practitioners, that the greatest sufferers from these disordered states, are the inconsiderate consumers of tea and coffee, who substitute them largely for food.

It would extend this inquiry too far to enforce the above views by relations of specific cases. A large number could be cited as strongly illustrating their correctness.

The practice of giving tea and coffee to children at their meals cannot be too strongly reprehended and discountenanced. In the first periods of life, the most nutritive food, rich in plastic elements and capable of favoring the highest organization, is that which is required for growth and development.

In the first fifteen years, nature is employed in constructing and perfecting the mechanism of life, fitting it for the conflicts, the exertions, the labors it must encounter and undergo in the struggles and difficulties of the great arena of the world, as well as with exterior malignant influences hostile to its existence, to which it is incessantly exposed. Without good materials there cannot be produced a good fabric.

Whatever tends to excite, to render irritable, or to develop unduly the cerebral structure and functions in children, is of necessity injurious. The bills of mortality show the fearful ravages in the early years of life from cerebral disease; and the foundation of most of the neurotic diseases and of ill-health in adult life, dates from the abortive efforts of nature to build up substantial organs from the paucity and poverty of the building materials, or the abnormal direction imparted to nutritive action, by over-excitement, in the commencement of development.

Tea and coffee being cerebral excitants cannot act otherwise than injuriously on children, in whom there exists no object for such artificial stimulation. Indirectly, they are mischievous by taking the place of food that contains all the elements and constituents of the fluids and solids of the organs and their products. They should be abolished from the dietary of children in all well-regulated families, and by parents careful of their childrens' welfare.

The analysis of tea is not complete, like that of coffee, by M. Payen. As far as known, it contains no alimentary elements, and cannot be classed with food. It is a purely cerebral excitant.

Though the grain of coffee has amongt its constituents alimentary elements, yet in the common slovenly process of torrefaction, the calorifacient principles are destroyed; and the plastic are also more or less decomposed. But when more carefully performed, and these principles are not materially injured, still a small portion only can be dissolved in the infusion or decoction made in the ordinary mode.

The infusions of tea and coffee cannot, therefore, be used as food, and be made substitutes for nutritious aliment, without a serious detriment to the economy. They are cordial beverages, and as such are grateful and useful, especially to those engaged in mental pursuits, and who lead sedentary lives.—They must, at the same time, be combined with substantial nutriment, or the blood becomes impoverished, and fails to contain the materials for organic structure, evolution of nerve-force.

In proportion to the degree of physical exertions, are the wear and tear of the solids, and the expenditure of the forces. The elements to maintain these in their normal conditions, must exist in the blood, and the blood obtains them from the aliment in which they exist, through the digestive apparatus. Tea and coffee largely drunk at their meals by those engaged in active and laborious pursuits, by excluding a due quantity of substantial food, rich in the plastic and force-producing elements, are more injurious to these classes than to the sedentary.

The inevitable consequences of this practice must be to undermine the constitution, to impair the health, to break down the forces, to cause various nervous sufferings, and finally to produce disability for labor.—*Amer. Journ. Med. Sciences.*

Art. II.—*On the use of Etherial Solution of Gun Cotton in the cure of Erectile Tumors without Operation.* By Daniel Brainard, M. D., Professor of Surgery in Rush Medical College, Chicago.

This adhesive liquid which was ushered into the profession with great recommendations as a substitute for needles in cases of hare lip, and for adhesive plaster in wounds, seems to have failed in fulfilling the expectations which were excited of its usefulness, and to have become rather an article of the *toilette*, and a substitute for court plaster, than a useful addition to our surgical armory. Struck, however, in the experiments with it, with the contractile power it posesses, I determined to test its application to the surface of any erectile tumor which might present itself for treatment.

During the last winter a case of nævus of the size of a very large strawberry, situated on the anterior fontanelle of a young infant, was presented for operation. I immediately covered it with a solution of gun cotton, and although it was much elevated above the surface, had the satisfaction of seeing it brought by the contractile power of the liquid in drying to a level with the sound skin. It was allowed to remain for several weeks, and then a fresh application made; and at the present time scarcely any trace of the nævus remains, although but two applications have been made.

The next case was that of a young child, with a nævus ¾ of an inch in length, and ½ an inch in breadth, situated beneath the right eye. This at birth was scarcely perceptible; but in six months had acquired the size mentioned, and was rapidly increasing. In order to avoid the irritation resulting from its

proximity to the eye, the application was made during the sleep of the infant, and was required to be renewed twice a week, on account of its becoming loosened. After two months use, the nævus is scarcely perceptible, and the use of the solution has been for sometime discontinued.

It is not improbable, that by preventing the necessity of resorting to operations in such cases, this liquid may find a use more important than any to which it has before been applied.

Art. III.—*Remarks on the Convulsions of Children, as they occur during Paroxysms of Intermittent Fever.* By P. A. Allaire, M. D., of Aurora, Illinois.

The disordered conditions and diseases of the brain and nervous system, may well be considered as among the most interesting to the medical attendant, as they are in some of their forms the most appalling to the friends of the sufferer; while our knowledge of them is, perhaps, less precise, in consequence of the many and peculiar difficulties which attend their investigation. Of the functions of many organs and their physical condition, we may learn something by our senses, but of the brain and spinal cord next to nothing, and we can learn nothing of the patient in many cases. There is, also, another fact which increases the obscurity of this class of affections, viz: the dissimilarity of post mortem appearances in some cases where the symptoms are the same.

The convulsions of children, occurring during attacks of ague, I do not now remember to have seen specially noticed; but it is a frequent complication in our miasmal district, and where not correctly managed may be a fatal one. All the cases observed by me have been between the ages of six months and six years, but a large majority of them was under three years of age. I have not remarked that one six years of age was more frequently attacked than the other. A deviation from the healthy circulation of the blood in the brain, I have thought would rationally account for this disturbed state of the nervous functions, and that deviation would seem to be produced by pressure. The normal circulation in this for some children is more active than in adults, which causing a greater impressibility, will account for the ease with which irritation may here be lighted up, and it is, in fact, the reason of so many serious brain fevers occuring among them, which are originally but sympathetic affections. But that there is in this form of convulsion no cause of a reflex character, seems certain from the many signs of direct congestion present, caused by the increased force of the heart's action, and the consequent

spasm of the platysma muscles, compressing the jugular veins. The attack occurs usually, shortly after the accession of the hot stage, occasionally before it is fairly established. and with but few, often no premonitory symptoms. Sometimes an unusual restlessness may be observed during the latter part of the cold stage, but generally not until this subsides can we perceive any sign of its approach, then, if the child dozes, he may start, cry out or clinch his hands; or if awake and up, he falls as in epilepsy; general convulsions follow, the eyes are turned upward or inward, the pupils are contracted for a few moments, then dilated, and remain so during the attack, the face is flushed or purple, head hot, jugulars distended, pulse strong and frequent, the jaws are closed, respiration hurried and imperfect, but not stertorous. I have not noticed any involuntary discharges, or spasm of the glottis.

This state of convulsions may last from one to five minutes, followed by perfect coma or a partial return of sensibility, which lasts from five minutes to an hour, when another attack comes on, followed again by more perfect and persistent coma, which continues in the worst stages until death closes the scene, or it may again be interrupted, at intervals, by convulsions. In the mildest cases patients recover without treatment, after one or two convulsions, as the hot stage subsides; but some squinting and nervous agitation may then be remarked for ten or fifteen hours, and a recurrence of the chill is almost certainly followed by severe convulsions.

The successful treatment of these cases, when commenced early, is sufficiently easy. Regarding the condition of the brain as one of pure congestion, whatever may be the cause, with a tendency to terminate speedily in effusion, the *rationale* of the following treatment is as plain as it is successful, and easy, when commenced before such change has occurred in this delicate organ as is almost necessarily fatal. The following cases will serve to illustrate the treatment, better perhaps than a formal discussion.

R. J. A robust male child of healthy parents, æt. two years, had had ague in the spring of '46 without complications, from which he had perfectly recovered. On the 15th August following, about mid-day, he had a mild paroxysm of intermittent fever, marked by nothing unusual, except some slight nervous agitation during the hot stage. Having had no medicine on the 17th, at noon the usual signs of a chill came on, and lasted nearly half an hour, when it subsided, and in about five minutes after, severe general convulsions suddenly commenced. Being present at that moment, I had his head held over a vessel, and commenced at once pouring cold water in a full stream

from a height of ten or twelve inches, on the neck and head: in less than a minute all spasmodic action had ceased, the face and neck which had seemed distended with blood, were now pale and cold, but the child was insensible. I continued the application less profusely; and in three or four minutes he gave evidence of improvement, by crying and struggling against it. The douche was now abandoned, but the head was kept wet with the water, during the continuance of the hot stage. No other remedy was used, the case assumed the usual appearances of a paroxysm of ague, was treated as such, and speedily recovered. This child has had intermittents since, and on one or two occasions there has been some spasm of the extremities during the hot stage, but a quart of water fresh from the well, poured on the head, always prevents further mischief.

Sarah B., a healthy, but rather slender child aged four and a half years, was seized in Sept. '46, with general convulsions during the formation of the hot stage of a fit of ague. I saw her in fifteen minutes after their commencement, and found her in an imperfectly comatose state, head hot, pupils slightly dilated and immovable, face looked full, but the expression was placid, the convulsion having subsided. As sensation was not entirely abolished, she could still swallow. I then gave her about six grains of Ipecac, and placed her feet and legs in hot water; the convulsion again commenced. Cold water was now freely applied by the douche as in the first case, all spasm subsided, and by a continuance of it, the little patient became sensible in about five minutes. Shortly after she vomited freely, the skin became moist and in an hour all the head symptoms had subsided. She was immediately put on the use of Sulph. Quinine, and recovered without further bad symptoms.

September 6th, 1846, was called to see a male child aged nine months, of previous good health, parents healthy. Found on arriving that the child had had nearly four hours before a well marked chill, apparently of ague, which had excited no alarm as the disease was very prevalent at the time. On the subsidence of the chill, which lasted some 40 minutes, convulsions commenced and lasted about 2 minutes: this state was succeeded by stupor nearly perfect, of about half an hour's duration, this was followed by another convulsion to which a comatose state again succeeded. In this way convulsions and coma alternated until the time of my arrival, a little more than three hours after the first fit. Perfect insensibility was then present, muscular system relaxed, pupils dilated, extremities and surface generally warm, pulse 120 rather feeble, no fullness of jugulars, face pale. Nothing had been done for the

child except the application of Spts. Turpentine to the chest and immersing it in warm water. I applied for a few moments the cold water in a stream to the head, but finding it reduce the force of the heart's action, I desisted but kept the part wet with it. Mustard plasters were applied to the back of the neck, abdomen and legs, and a stimulating enema exhibited. But those efforts were of no avail; the disease had advanced too far, the pulse continued to fail, respiration became embarrassed, and the patient sank without further convulsion in about two hours, being about five and a half hours after the first fit. I regret that a post-mortem examination could not be had.

This is the only case of the disease which I have seen terminate fatally, but it is enough to prove the necessity for active treatment, to ward off the tendency to effusion which seems here evidently to have taken place as a result of the congestion.

These cases, selected from a number of others, will be sufficient in illustration. There is nothing new in the treatment, consisting as it does mainly in the use of usual revulsives and the powerful refrigerant, the cold water douche, which seems to me to have been too much neglected in the treatment of a cerebral disease, especially of children, when the attacks are often sudden, with a tendency to a speedy fatal termination. The remedy is a powerful one especially when assisted by a warm semi-capium, and I can truly say I have not seen it fail to relieve infantile convulsions, except such as arose from exhaustion, or when the cause was remote from the brain.

I may state in conclusion my impression that in these convulsions of children, the condition of the brain is allied to that of puerperal patients. In one case the excitable state of the brain being common to the period of childhood, in the other, an irritable and excitable condition of the nervous system generally accompanying pregnancy and parturition: hence convulsions occur in either case, strikingly similar in their general features, excited by causes which, in a different state of the nervous centre would give rise to no such manifestations, which are relived by the same class of remedies speedily, and without which treatment, in either case, death would often quickly ensue. It is true, bleeding is seldom needed, though often used in treating the infantile disease; for cold water applied as a douche, is equally speedy and powerful, and much more easily had recourse to, and children will recover from its effects almost immediately, who would not rally entirely from the loss of three or four ounces of blood in as many diseases.

Art. IV.—*Suit for Malpractice.*

[We have received from Dr. Spencer the details of a suit for malpractice. The entire communication occupying more space than we are able to give, we present our readers with the following abstract, embracing the matter at issue, and the main points of the testimony.]

An action was brought for damages by Henry Glasford against Saml. Rifenbarick and Rodolph Brearly; and, as set out in the Declaration, for unskillfully and ignorantly failing to reduce a luxated hip for the plaintiff.

The defendents set up in bar of damages, that the said injury complained of, was not a luxation, but a fracture of the neck of the femur, within the capsular ligament.

John Glasford, son of Plaintiff, deposed that his father in alighting from his horse, had his foot retained in the stirrup, and that the horse ran violently with him for a distance of six or eight rods. The patient, at the time of the accident, was 61 years of age—was carried into the house and visited within an hour by Dr. Rifenbarick, who found him lying on his back, with his limbs drawn up; examined him during a space of twenty minutes; said the joint was not luxated, but badly sprained. Witness thinks plaintiff did not request defendant to return, nor did defendant say he would. Plaintiff suffered severely for four or five weeks; that during this time witness went after Dr. R. who came and gave plaintiff a dose of salts; went after the Doctor because plaintiff was feverish and costive. The Doctor called no more for some time, and then called in company with Dr. Brearly. When plaintiff got up, the injured limb was found to be too short, and this was the first intimation they had of the fact.

Wm. Glasford says he was at his father's when Dr. R. came; states, as to the examination, about what former witness did; but thinks the examination might have lasted half an hour. No measurement was resorted to. The leg is now about two inches shorter than the other, with the toes turned out.

Dr. McFarland called—is a physician and a surgeon of twelve years practice; a graduate of Jefferson Medical College. Says there are four luxations of the hip: this is the first; he critically examined the plaintiff, and felt satisfied that he was correct; said the first luxation was that in which the force applied below, drove the thigh bone upwards and backwards on the *dorsum ilii;* thinks this view of the case accounts for the turning of the toe out, as well as the shortening of the limb. In this luxation, the toe at first turns in, but by long continued use it turns out. Witness was asked if this might not be a

fracture. Thought not, from the nature of the injury, and the frequency of luxations compared with fractures, and that upon the day before he had heard [no?] *crepitus* upon moving the limb. Witness was asked what the treatment should be if the injury were within the capsular ligament? Said the pullies ought to be applied.

Dr. Moore called—is a graduate: has been three years in practice: testified as to the luxations of the thigh about what the former witness stated; and coincided with him in supposing this to be a luxation. Thinks that in this luxation the toe at first turns in, but afterwards out. Thought it possible that the injury might be a fracture without the capsular ligament, not within; but believed it to be the first luxation.

Dr. Spencer called—is a physician and surgeon of about twelve years practice. Illustrated the four luxations upon the skeleton. Thinks this is neither of the four: knows of no luxation in which the injured limb is shortened two inches, with the toe turned outward. The anatomy of the parts precludes the possibility of such an appearance, unless the injuries were accompanied by great muscular lesion. Thinks this injury is a fracture of the neck of the femur, and of course within the capsular ligament. A competent surgeon can distinguish a fracture by the facility of extending the injured limb to an equal length with the other, by crepitation, and by the limb being again retracted when the extending force is withdrawn. The probabilities of a fracture to an old person are *much greater* than a luxation; did not believe it would be easy to pull a man's leg shorter by drawing at the foot, not that violently jerking at the limb would produce the first luxation. From the symptoms it would of course be absurd to suppose that this was the second, third or fourth dislocations, consequently concludes it must be a fracture. Would not undertake to say whether or not the examination of the injury by Dr. Rifenbarick was or was not sufficient; any examination was a good one that would satisfy the surgeon as to the nature of the injury; the rule was to lay the patient on his back, and pass a tape down the median line.

Supposed an injury of this sort, in an old person, to be incurable, and that the toe always turned out. In charging the jury, the judge remarked that before they could find for the plaintiff, they must be clearly satisfied that the injury complained of was a luxation; as this was the only specification in the declaration, and if they could entertain any reasonable doubt as to its nature they must find for the defendant. The jury then retired, and after five or six hours returned with damages of $200 for the plaintiff.

[Our opinion has been asked in this case; we can give it in few words. We cannot imagine the possibility of a luxation of the head of the femur on the dorsum of the ilium, with the toe turned outwards. This was doubtless a fracture, whether within or without the capsular ligament is a matter of no consequence in the present case, neither is it necessary for us to state whether or not the treatment by the attending physician was proper or not. We have no hestitation in pronouncing the verdict in this case to be unrighteous and illegal; in which opinion we are fully sustained by the charge of his Honor the Judge.—Eds.]

ART. V.—*Treatment of Cholera.* By C. A. FINLEY, M. D., Surgeon, U. S. A.

To the Editors of the Medical Examiner:

GENTLEMEN: Having done me the honor to publish in your journal my report of the treatment of two cases of Asiatic Cholera, together with my view of the inapplicability of opium to a well marked, or fully developed case of that disease; permit me to lay before you, in the following extract from my quarterly sick report, the results of my treatment.

"It will be seen in this report, that there have been sixty-six cases of Asiatic cholera under treatment; these were, even the mildest, characterized by the discharges peculiar to that disease. The doubtful cases of diarrhœa have been placed under the head of diarrhœa. The treatment, in every case which has occurred since my special report, has been that laid down in that report; the free exhibition of calomel and camphor, and the quinine after reaction was fairly established. Four of the sixty-six cases were lost; among the recoveries were many in incipient collapse, several in whom the pulsation of the radial artery could not be discerned when the patients were admitted. Ptyalism occurred in ten or twelve cases; in only three cases was it severe, or of more than ten days' continuance. As soon as the dejections gave evidence of the restoration of the biliary secretion, the ol. ricini was given freely, and assisted by enemata, whilst every four or five hours quinine and camphor in doses of five grains each were administered. Under this treatment few cases remained in the Hospital longer than five days."

There were seven cases of the sixty-six, in which calomel to the amount of three hundred grains was given, and the period of their continuance in the Hopital was as follows: Rhette thirteen days, Stark three, Douthett twenty, Brown three, Hoeffer nine, Kippe five, Doran thirteen.

Newport Barracks, Ky., August 15th, 1849.

ART. VI.—*Case of a Negro woman, who gave birth to twins of different color.* By R. CARTER, M. D., Virginia. (Communicated in a letter to one of the Editors.)

I promised you when I left Philadelphia, that on reaching home I would try and find out something concerning the woman who had twins, the children being unlike in color. The following is what I have ascertained in regard to the case. The negro woman Winny, is twenty-three years old, of good constitution, and *as black as the ace of spades*. She has borne three children previously to this labor. She states that in the month of April, 1848, she had connection with a white man, and on the day following with a black one. Some week or ten days elapsed, when her catameniæ failed to appear. After this she had the ordinary symptoms of pregnancy, the nausea and vomiting being more distressing than in her previous pregnancies. In February, 1849, about the middle of the month, she was delivered of twins. The dark colored child was first delivered and afterwards the mulatto. The children were robust at birth. One of them is a mulatto, and the other is as dark as negro children generally are. The woman is certain that they were begotten by different fathers, and this is the conclusion to which all have come who have seen the children.—*Medical Examiner*.

PART THIRD.

FOREIGN INTELLIGENCE.

PRACTICAL MEDICINE, &c.

1.—*On Sanguineous Perspiration.** By Dr. SCHNEIDER.

It has often been a question whether, under any circumstances, blood is ever mixed with the fluid of perspiration in human beings. Dr. Schneider remarks that he has several times observed the phenomenon. He mentions having been once summoned to a healthy man, 50 years of age, who, for a period of twelve months in succession, had traveled on foot: during the journey he had perspired much in his feet; and, on examining them at the end of it, they were found covered as high as the ankles with a sanguineous perspiration, which had also soaked into and stained his stockings. In another case of a healthy young man, Dr. S. mentions having noticed that, after violent exercise, the perspiration beneath the arms was of a bright red colour; and he quotes a similar case from Hoffman.

In proof that the perspiration over the whole body may also be of a sanguineous character, he mentions one case in which it had been ob-

* "And he sweat as it were great drops of blood."—*Bible*.

served in a delicate man after copulation, and then quotes the following still more remarkable case from Paulini. While surgeon on board a vessel, a violent storm arose, and threatened immediate destruction to all. One of the sailors, a healthy Dane, 30 years of age, of fair complexion and light hair, was so terrified that he fell speechless on the deck. On going to him, Paulini observed large drops of perspiration of a bright red colour on his face. At first he imagined the blood came from the nose, or that the man had injured himself by falling; but on wiping off the red drops from his face, he was astonished to see fresh ones start up in their place. This coloured perspiration oozed out from different parts of the forehead, cheeks, and chin; but it was not confined to these parts, for, on opening his dress, he found it formed on the neck and chest. On wiping and carefully examining the skin, he distinctly observed the red fluid exuding from the orifices of the sudoriparous ducts. So deeply stained was the fluid, that on taking hold of the handkerchief with which it was wiped off, the fingers were made quite bloody. As the bloody perspiration ceased, the man's speech returned; and when the storm passed over he recovered, and remained quite well during the rest of the voyage.—*London Medical Gazette.*

2.—*Morbid Growths and their Extirpation.*

Mr. HUNT, in the Provincial Medical and Surgical Journal, May 2d, sums up an interesting paper on this subject, with the following conclusion:

"The extirpation of morbid growths may be said to be *indicated* (their position being convenient for operation,)—1. Whenever the disease is clearly the result of local or mechanical irritation from some external source. 2. Whenever the tumor is neither painful, tender, nor progressive, the health being good. 3. Whenever it can be fairly demonstrated that the pain or irritation of the tumor, being the primary and sole cause of disturbed health, its removal will be the least of two evils. 4. A tumor in the mamma, originally depending on disordered health, may, *after the health is restored*, become painful from the pressure of the dress, and thus the absorbent glands may be excited and the uterine functions disturbed. Excision may be justifiable in such a case; but the proper time must be chosen, and great attention should be paid to the health subsequently.

"The extirpation of morbid growths may be said to be *contra-indicated*, —1. When failing health precedes or accompanies the appearance of local disease. 2. When the disease is advancing, the tumor sensibly growing, no local or mechanical cause of irritation being apparent. In this case, it is right to assume the existence of latent constitutional disease, and to treat the case medically rather than surgically. 3. When there is a plurality of tumors. 4. When the disease re-appears, whether soon or late after an operation for its removal.

3.—*Poisoning by Lobelia Inflata.* (Prov. Med. and Surg. Jour.)

This powerful medicine is still extensively employed by quacks, and we are informed that, from the injudicious use of it, a person who had placed himself under the hands of an herb doctor, in the north of England, has lately lost his life. At the inquest, it was proved by two medical witnesses that the deceased had died from the effects of the the lobelia inflata. A verdict of manslaughter was returned against the quack.

4.—*Case of slow Action of the Heart in Fever.* By CHARLES HALPIN, M. D., Cavan.

In reply to the query in the Circular relative to Fever Report, respecting the peculiar phenomena of the circulating system, Dr. Mease and myself, in our joint report on the epidemic fever of 1847, stated that we had met with "nine cases in which the heart's action ranged between forty and fifty beats in the minute, yet all these cases terminated favorably."

Since that report was written, I had an opportunity of treating a similar case in the County Fever Hospital: a short history of its course may not be uninteresting.

Ellen G——, aged 18, was admitted to hospital 2d December, 1848. Pulse 96; skin hot; tongue dry, but clean, with considerable thirst; no headache. The fever ran its course mildly, and terminated, without appreciable crisis, on the 11th day. On the 14th of December she relapsed; the skin became hot, and the pulse rose to 84. On the 15th it fell to 70, and continued to decline gradually but steadily until the 18th, although stimulants were given very freely. On the 18th the pulse was 42; 19th, 45; 20th, 46. She took seven and a half ounces of whiskey each twenty-four hours. 21st, felt better, but pulse was 44; 22nd, 44; 23rd, 40. Ten ounces of spirits were again taken.

Dec. 24th. Pulse 40. Took the same quantity of stimuli; was up and dressed; and, with the exception of this extremely slow pulse, was apparently well.

Dec. 25th. Pulse 40. On this day she was ordered the acetated tincture of iron, and small doses of tincture of Spanish flies. Continued the spirits; ten ounces daily.

Dec. 26th. Pulse 42; 27th, 52. Took six ounces spirits. 28th, 29th, and 30th, 80.

After this date all remedies were laid aside, and she was discharged on the 6th January, the pulse being then 68.—*Dublin Quar. Journal.*

5.—*Tincture of Canabis Indica in Menorrhagia.* (Med. Gaz.)

Dr. Churchill has spoken strongly in favor of the powers of Indian Hemp in sanguineous uterine discharges. It appears that this property was discovered accidentally by Dr. Maguire, who prescribed it for neuralgia in a female, also at the same time suffering from menorrhagia. Dr. Churchill finds that in simple menorrhagia, the discharge is often stayed in twenty-four hours by five drops of the tincture three times a day.—In other cases, where the discharge returns too frequently, it has also proved useful. He has also tried it with advantage in threatened abortion and in the hæmorrhage from uterine cancer. He does not explain the *modus operandi.*

6.—*Lemon juice in Rheumatism.*

Mr. MIDDLETON had lately tried, with much advantage, the use of lemon-juice in acute rheumatism. These cases possessed the usual characteristics of the disease, and in some instances were secondary attacks. In some of the cases the first attack had lasted several weeks before the acute symptoms had been relieved. Under the influence of lemon-juice, however, the pain was usually much mitigated, and in some instances removed in a few hours. He administered a purgative in the first instance, and then gave half an ounce of lemon-juice every four hours. As he

had usually given alkalies with benefit in cases of a similar description, he was at a loss to understand how lemon-juice could act so beneficially.

Mr. HEADLAND said that the profession were indebted to Dr. G. O. Rees for the use of this medicine in rheumatism. It had been employed by that physician and by Dr. Babington, extensively, in Guy's hospital. The fact was, that it had been too much the fashion to connect the cause of rheumatism with cold. It was evident, from the success of the treatment of rheumatism by lemon-juice, that its origin was due to other causes. A great variety of remedies had been used in the cure of rheumatism, and he (Mr. Headland) believed that other agents acted as beneficially as lemon-juice when they exerted the same action on the blood. Reasoning on the effect of lemon-juice in cases of rheumatism, he had asked himself whether this medicine might not be employed with equal benefit in other diseases. He had found it of the most essential service in cases of obstinate dismenorrhœa. He related one case in which all other remedies had been ineffectual, and in which the continued use of this remedy effected a cure. It was remarkable that lemon-juice had not a tendency to act on the bowels, and where it had, or the constitution was in such a state as to allow it to be carried off by that channel, the medicine did not exert its special influence.

SURGERY.

7.—*Further Observations on the Treatment of Chronic Inflammation of the bladder by Injections of Nitrate of silver, with Cases.* By ROBERT L. MCDONNELL, M. D.—Licentiate of the King and Queen's College of Physicians, and of the Royal College of Surgeons, Ireland; Physician to the Montreal General Hospital, Lecturer on the Institutes of Medicine, University of M'Gill College.

In a paper, published in the Third Volume of this Journal, I drew the attention of Surgeons to the great utility of *Injections of nitrate of silver into the bladder, in chronic inflammation of that organ;* and in support of my views, I adduced some remarkable instances of their successful employment, which had occurred both in my private and hospital practice. It is with the hope of placing the method of treating a disease, hitherto considered incurable, (which one of the most eminent surgeons in the world—Sir Benjamin Brodie—considers the "opprobium of Surgery," and says, "there is no disease for which an approved method of treatment is more wanted,") in that position in surgery, which, I feel convinced it deserves to occupy, that I have laid the following cases before the profession.

Since my first paper was published, I have cured a great number of persons affected with this disease, but I have selected the following cases from amongst them, because, in them, the cure was *solely effected by the injections*, whereas, in some of the others, general treatment was likewise employed; and in some, the affection of the bladder, was complicated with organic change of the prostrate gland, with strictures of the urethra, and, in one instance, with urinary fistulæ and stricture—complications requiring special treatment, and which, some might suppose, assisted in relieving the affection of the bladder; although, I am quite satisfied, the cures of the vesical inflamation were due to the injection alone. I have also omitted some mild cases of the disease, because, as stated in my former paper, they might have been cured by remedies, generally known to surgeons, and therefore, are not so valuable, as evi-

dence in favor of the method by injections. But, my principal reason for selecting the following examples is, that we have in them, unquestionable testimony of the utility of the practice I advocate—for in all, general treatment, the usual remedies *had been carefully and perseveringly employed, without success; and in one, the age of the patient, and the duration of the disease, was most unfavorable for testing the merits of the treatment, yet in all, the cure was complete and permanent.*

Case 1. Mr. ——, aged 33, had several attacks of gonorrhœa which had been cured in the usual manner, and had caused him very little anxiety, except the last one, which was contracted in April, 1848, and was soon followed by symptoms indicating inflammation of the bladder. For the latter affection he had been under the care of a surgeon in this city, from May till September 27th, when he consulted me. He then complained of being obliged to make water almost every ten or fifteen minutes during the day, and between twenty and thirty minutes during the night, accompanied by pain and heat about the region of the bladder, scalding along the urethra particularly as the last drops were passing. The urine was usually expelled in a jet, and, when allowed to remain at rest, it threw down a copious deposit of pus and blood, and some flakes of lymph; no discharge from the urethra. He had lost flesh and strength, and had become dispirited and extremely irritable, and his countenance was haggard and anxious. Tongue clean,—appetite good,—bowels regular,—pulse 80, small and weak,—no headache. The sleep being so frequently disturbed by necessity of emptying the bladder, he rises in the morning languid and exhausted. In order to ascertain the condition of the urethra, a No. 11 (Weiss) bougie was passed, and met with no obstruction, nor was any pain complained of, except as it was passing over the neck of the bladder. The deposit thrown down by the urine was examined under the microscope, and found to be composed of pus and blood globules, epithelial scales, and some crystals of triple phosphate. He was ordered Dover's powder at night.

Sept. 28, 6 o'clock, A. M.—He states that since yesterday he passed water about fifty times. At 6 o'clock, P. M. I injected the bladder with a solution of nitrate of silver containing two grains to the ounce, which caused very little pain. Ordered him to take Dover's powder at night, a warm bath immediately, and drink plenty of weak tea.

Sept. 29, 1 o'clock, P. M.— Pain ceased immediately on entering the bath. He has passed water only four times since 6 o'clock yesterday and the evacuation of the bladder is not accompanied by pain or scalding, and the pain above the pubis in the perinæum has completely disappeared. In all respects he feels much better, and the countenance has lost the haggard appearance it had latterly assumed. The urine is now clear and devoid of sediment. Barley-water for drink, and warm bath at bed time. Six o'clock, P. M. Passed water only once since last report, and even then he did so from a feeling that it was not right to allow the bladder to remain distended, and not from a desire to empty it.

Sept. 30—Passed water only once between ten o'clock last night and eight this morning.

Oct. 1.—Within the last twenty-four hours has made water only three times.

Oct. 2.—Injected the bladder again to-day with a solution of the same strength, which gave scarcely any uneasiness.

Oct. 6.—No return of the malady. He can now keep his water for six or seven hours, and it is quite clear and free from any pus or blood globules when examined under the microscope.

I have seen this gentleman very lately, and he assured me that he has not had the least return of his complaint, although he has imprudently exposed himself to wet, and severe cold on many occasions since I ceased to attend him.

The following case has been transmitted to me by Dr. Shewbridge Connor, Physician to the Fever Hospital, Carlow, one of the most eminent practitioners of Ireland, whose testimony must be considered as highly valuable.

"Case II.—I attended Mr. ——, a respectable farmer some miles from this, whilst he was laboring under fever, complicated with bronchitis.—When convalescent, he informed me that "for years he was obliged to empty his bladder oftener than any one else. He could not drive a mile without stopping several times; he said that occasionally he passed whitish-looking matter. Warm baths, buchu, and other usual remedies were prescribed by me without much effect, perhaps partly in consequence of his persisting to superintend his farm-work in cold damp weather.

In October, late one evening, he sent for me, and begged me to bring something to relieve him, as he was obliged to be up every minute, and was suffering intensely all the time. Fortunately, I had read some days previously your paper [*Dublin Medical Press*, Oct. 6, 1847] on "Injections of nitrate of silver in Chronic Inflammation of the Bladder." No practitioner that I have met, had or has tried it, but aware of the power of the medicine in other inflammations, I had no hesitation in acting on your suggestion, and accordingly injected five grains of nitrate of silver, two drachms of tincture of hyoscyamus, and four ounces of distilled water. The instrument was clumsy and not suitable—a small brass enema syringe, connected by a piece of bladder with the end of a gum elastic catheter. At the moment I could not get a glass syringe. Taking care that the nitrate of silver should remain only a moment in the syringe, I injected it, and con.pressed the catheter for about a minute or so to prevent the patient instantly discharging it, which he had a great desire to do. I then withdrew the catheter and left him for the night, having ordered [needlessly perhaps] flannels wrung out of hot water, to be applied for some time to the pubic region. Next day, he informed me that he had slept well, and had no occasion to get up for six hours. I passed his door and met him once a week at least, and he has never mentioned the subject unless when asked about it, though, at times, he feels a return of his complaint, which is so trifling, however, that he does not like *troubling* the Doctor. The long-suffering of the farmer class, when a Doctor is to be consulted, is the most remarkable in this part of the world.

"Mr. —— now travels far by railway—not a very pleasant conveyance for a man with irritable bladder.

Shew bridge Connor, M. D.,
Co. Fever Hospital, Carlow.

Case III.—Mr. ——, aged 64, stout plethoric habit, contracted gonorrhœa about thirty years ago, and since then he has suffered from the following symptoms:—Pain across the urethra, after sexual intercourse, and after passing water,—great pain over the region of the bladder and in the perinæum,—urine passed every half hour, and sometimes much oftener. The urine was always fœtid, turbid, and threw down a copious deposit of pus, blood, flakes of lymph, and mucus. At various times, his sufferings have been so great as to keep him confined to bed for months, and he has frequently been attacked with spasmodic stricture, causing retention of urine. According to his own statement, he has consulted med-i

cal men in almost every city in North America; for, being the proprietor of a public exhibition, he has visited the principal cities frequently during the last nine or ten years. He has also passed through the hands of numerous quacks and charlatans. He appears to have derived the most benefit from the services of a surgeon in Richmond, N. Y., who advised him to use capulses of balsam of copaiba, which he thinks have kept the disease in abeyance, more than any other treatment. In 1846, he applied to a surgeon in this city who gave him buchu and other remedies without any benefit. Between 1846 and 1848 he consulted some eminent practitioners in Philadelphia, but deriving no relief from their remedies, he began as he says, "to doctor himself with medicine similar to what he got in Richmond, which gave him temporary relief."

Sept. 12, 1848.—He consulted me, and in addition to the foregoing he complained of pain when he sat down suddenly, but had none on going to stool. The pain on pressure over the bladder was very great, but he had no pain shooting along the course of the ureter or to the kidneys; never passed any calculi. A No. 9 (Weiss) bougie was introduced into the bladder without any difficulty, except near the neck of the bladder, where the passage of it caused pain. No. 10 and No. 11 passed with equal ease.—The urine voided during the visit, was examined, and found to contain a large deposit of pus aud blood globules, flakes of epithelium and crystals of triple phosphate, and, on being tested, the supernatant fluid was found to be highly albuminous. It was also much more fœtid than I have found the recent evacuation of urine to be—even in a similar case. He was order to take that night, a draught composed of spirits of camphor, sweet spirits of nitre, and tincture of hysoscyamus, and the next morning the bladder was injected with a solution of nitrate of silver, two grains to the ounce; and he was advised to take a warm bath and to drink plenty of barley water.

Sept. 14.—For a few hours after the injection, he was obliged to empty the bladder every half hour—but towards morning, he could retain his urine for two hours and a half at a time. The smarting pain in the region of the bladder is much relieved; no pain over the pubis or in the perinæum. Continue medicines.

Sept. 15.—Last night, the weather becoming suddenly very cold, he made water more frequently than he had done during the day, but it was quite free from odour, and presented a healthy appearance. Continue medicines.

Sept. 20.—Injected the bladder again to-day, with a solution of four grains to the ounce.

Sept. 25.—Injected the bladder again, with a solution of the same strength as the last.

Sept. 30.—Injected solution, five grains to the ounce.

Oct. 3.—Repeated the injection. He can now retain his water for six hours at a time, which is quite free from offensive odour, and clear.

Oct. 6.—Injected again.

Oct. 9.—Injected a solution of the same strength. He can now retain his urine for seven or eight hours at a time, and, in short, feels no inconvenience from his old complaint.

This gentleman, who had passed several years in a warm climate, spent all last winter in Montreal, which was one of the most severe and coldest that has been for several years, yet he went out almost every day, and did not experience the least relapse, nor does he now, May 20, suffer from the least symptom of the excruciating and exhausting disease he labored under, for so many years, and which he had believed to be perfectly incurable.

Case IV.—Dr. ——, aged 30, in the active practice of his profession, in the Eastern Townships, consulted me for a severe attack of chronic cystitis which he had ineffectually attempted to cure by the usual remedies, and for which he had been under the treatment of a physician in this city, for nearly three months, without deriving much benefit. He stated that having been exposed to severe cold and wet, during a long drive in the autumn, he remarked, on reaching home, that he had some pain in making water, and scalding along the urethra. Of this he took little notice at the time, but the same symptoms continued unrelieved by the remedies he employed, and were soon attended with an urgent desire to empty the bladder almost every hour; the urine was passed in jets, and of turbid whitish color, throwing down a copious deposit of pus and blood when it had lain in repose for a short time, and he was affected with severe pain over the region of the bladder and in the perinæum at times which amounted to agony when riding on horseback, in the performance of his professional duties. He had latterly begun to loose flesh; and irritability of the mucus membrane of the intestinal canal, marked by frequently returning attacks of diarrhœa, added much to his sufferings. When he consulted me, he was much emaciated, the countenance wore a haggard and anxious expression; the pulse was small and quick; skin hard and dry, tongue, red, chapped; appetite bad, vomiting frequently, scarcely any food remaining on his stomach, except oatmeal porridge, bowels sometimes confined, but more frequently loose; sleep greatly disturbed by the necessity of frequently emptying the bladder; and his spirits, which before were good, were low and desponding. He was obliged to pass water almost every hour, and when examined under the microscope, the deposit presented precisely the same appearance that were discovered in the foregoing cases.

I ordered him a combination of mercury with chalk, rhubarb, extract of henbane, and acetate of morphia, all in small doses, to allay the intestinal irritation, and four ounces of distilled water, holding in solution eight grains of nirate of silver, were injected into the bladder; and he was advised to take a warm bath immediately after the operation. The next day he felt much better, and the improvement continuing, he was not obliged to have the injection repeated. I again saw him last January, nine months after the operation, when he appeared much improved, had gained flesh and strength, and had not the least return of his former malady. I had written to him a few days before his arrival in town, and in reply, I received the following note—

January 10, 1849.

My Dear Doctor—Your note was received, but not so soon as it should have been, owing to some neglect of the Post Office. I am happy to comply with your request, to furnish replies to your queries, as to my own case of cystitis. The disease has not returned, nor has it troubled me in the least, since I recovered from the first attack. I did not feel any inconvenience from the injection of the nitrate of silver into the bladder. I am happy to say, I never witnessed a more perfect cure than in my own case. I remain, my Dear Doctor,

Yours, &c.

R. L. M'Donnell, M. D.

* * *

As the foregoing cases may meet the eye of some practitioners who have not seen my former paper on this subject, I shall make no apology for introducing here the directions laid down in it for injecting the bladder:—"The patient being placed either in the erect position or on a sofa, a gum elastic catheter, about the size of No. 9 or 10 (Weiss) is introduced, and water at the temperature of 98 deg. Fahr., is injected through this into the bladder, by means of a caoutchouc bag, or what I prefer, a

syringe, with a "three-way valve," by which the fluid can be drawn back from the cavity if necessary. After the bladder has been completely cleansed of any fœtid urine and mucus which may be contained in it, the solution of the caustic, being heated to the same degree, is to be introduced in a similar manner, and, allowed to remain there for about one minute, care being taken, by compressing the urethra, to prevent its being forcibly ejected by the violent straining that is certain to be induced. The quantity of water or solution should never exceed four ounces, for though the bladder in its healthy state is capable of containing nearly a pint and a half of urine, without being over distended, yet as the quantity it is capable of retaining in severe chronic inflammation seldom exceeds a few tablespoonfuls, the bladder accommodates itself to its diminished contents, and gradually becomes smaller, and consequently a large injection would act injuriously in two ways—by over-distending the organ, or by passing up into the ureters. In fact, we find it unnecessary to use a larger quantity of the solution than I have mentioned, for it requiries some address to use even that amount without resorting to force. The patient is then ordered a warm bath, and should the urine become bloody or mixed with shreddy concretions, he should use frequent fomentations and anodynes. But these symptoms seldom last more than a few hours, and our patients should always be informed that such consequences are likely to be the immediate effects of the operation."

The strength of the injection has seldom to be increased beyond five grains to the ounce, although in one instance, that of an old gentleman, aged seventy-two, I had to increase the strength *gradually* to ten grains to the ounce before a satisfactory effect was produced. It is, however, always better to commence with a weak solution, which may be made stronger, according to the circumstances of each case, and the judgment of the practitioner. Some of my patients have hesitated about undergoing treatment by injections, in consequence of their advanced age, but though the disease is not in such cases so easily cured, as in the young subject, it is still in the great majority of instances remediable by the same means, as was proved by the great relief obtained by a patient aged *seventy-six*, who was under my care in the Montreal General Hospital, within the last month, into whose bladder I injected, on two occasions, a solution of nitrate of silver, two grains to the ounce. He left the Hospital of his own accord, May 23, quite free from his former complaint.

The Surgeon should, in fact, show his patient that all general treatment and local and general remedies having failed, he has only two alternatives to choose between—a life of misery and suffering, a burthen to himself, and incapable for the enjoyment of society, or the performance of business—and submission to a plan of treatment which has been eminently successful in cases equally protracted and aggravated as his own, and in patients equally old and infirm, and who like him had spent time and money, and exhausted their patience in ineffectual efforts to get rid of a disease so formidable, so excruciating, and so disgusting to themselves and others, as Chronic Inflammation of the Bladder.

Montreal, May, 1849.—*British American Journal.*

8.—*Treatment of Sore Nipples.* By Collodion.

The following observations are quoted from Professor Simpson's paper on gun-cotton solution. It has been proposed to use the etherial solution of gun-cotton for other purposes than the dressing and union of wounds —for example, as a substitute for the starch bandage in fractures; as an

application and dressing to ulcers, &c. In abrasions, and slight injuries of the skin and fingers it forms an excellent and adhesive dressing.—There is one extremely painful and unmanageable form of ulcer in which I applied it eight or ten days ago, at the maternity Hospital, with perfect success. I allude to fissures at the base of the nipple. Many practitioners know well the agonies some mothers undergo in consequence of this apparently slight disease; the ulcer or fissure being renewed and torn open with each application of the child. In two such cases I united the edges of the fissures, and covered them over with a solution of gun-cotton, making the layer pretty strong. It acted successful by maintaining the edges so firmly together that they were not again re-opened by the infant; the gun-cotton dressing was not, like other dressings, affected by the moisture of the child's mouth; and as a dressing, and at the same time by securing rest to the part, it allowed complete adhesion and cicatrization speedily to take place. I have applied it also repeatedly to ulcers of the cervix uteri and other various cutaneous eruptions. Its application relieves at once the smarting of slight burns.—*Brit. Rec.*

9.—*Erysipelas Treated by Severe Cold or Congelation: with Remarks on the Superiority of this Agent as a Remedy for External Inflammation.* By James Arnott, M. D.

The congelation or freezing of the animal textures produced by powerful frigorific mixtures, may be considered in its threefold character of a remedy, a prophylactic, and anæsthetic, or preventive of pain in surgical operations.

Congelation is a remedy for many diseases affecting the nervous and vascular systems. Of external inflammation it is a certain, speedy, safe, and agreeable remedy.

Certain, because wherever congelation can be produced, inflammation ceases. Every other remedy of inflammation, as blood-letting, antimony, mercury, minor degrees of cold, &c., are more doubtful in their effects.

Speedy, because congelation instantly arrests inflammation. The congestive state which sometimes succeeds, has nothing of the character of inflammation, and none of its consequence. Where the degree of duration of the refrigeration has been insufficient, or where the cause of disease continues to operate, the inflammation will, after a considerable period, return; but a re-application of the remedy will again immediately arrest it.

Safe, because in no instance, of hundreds in which it has been employed, has congelation been productive of any injury or untoward effect. Blood-letting often proves destructive, by prostrating the vital power required for reparation; and the other remedies have all their respective evils or dangers. Still, as every other potent remedy may be abused, so might congelation prove prejudicial if too long continued, or if produced by frigorific mixtures of greater power than is required.—In some cases it may be proper that congelation should be followed by the application of the "current apparatus," or the means which I have introduced for regulating local temperature with precision, in order to obviate reaction of the deeper tissues.

Agreeable, because it is speedy,—because it instantly benumbs the part, and relieves the pain accompanying inflammation. Excepting a slight tingling when the congelation commences, and for a few minutes after its cessation, this therapeutical agent causes no unpleasant sensation; such as the pain from the operations by which blood is extracted,

or the fainting thus produced; the nausea and vomiting from antimony; the soreness of the mouth from mercury; the pain from scarification in phlegmonous erysipelas, &c., &c.

The prophylactic virtue of congelation is the power which it possesses of preventing inflammation of parts which have been subjected to its influence. Wounds produced by surgical operations (as already stated in my paper in the *Medical Gazette* of December 1st), have invariably appeared to heal more speedily after the application of congelation, than under the usual circumstances, and probably on account of the absence of any injurious degree of inflammation. Indeed, it was the observation of this effect of congelation in preventing inflammation, which led to its use as a remedy of the same condition; and conversely, had it been first used as a remedy, its preventive power would probably have been as soon discovered. This property of preventing injurious vascular excitement ought alone, and independently of its anæsthetic virtues, to render the use of congelation a preliminary to surgical operations, for even the smallest of these occasionally proves fatal, in consequence of inflammation. A sad illustration of this has recently been afforded by the lamented death of a very distinguished statesman, who fell a victim to the consequences of a very trifling operation performed to remedy an inconvenience so slight that it could scarcely be called disease.

The third medical property of congelation, is its power of preventing pain in surgical operations. Its excellence in this respect, compared with ether or chloroform, consists first, in its power of producing local anæsthesia while the consciousness of the patient remains undisturbed; and secondly, and especially, in its perfect safety. Since the publication of my former remarks on this subject, other *sudden* deaths from chloroform have been reported by the press: of *eventual* fatal consequences and other mischiefs there is no record.

The remedial powers of congelation in inflammation are proved by the following cases of erysipelas, in which it was employed:—

To the philosophic physician, acquainted with the history of the treatment of erysipelas, the announcement of a new remedy for it will probably at first appear only as another example of the common fallacy of attributing the cure of a disease to the use of a medicine or remedial means, merely because the disease ceases after it has been administered. But there is this essential difference between the means now recommended, and the numerous and diversified expedients hitherto resorted to in erysipelas, that the former has in almost every instance in which it had been employed produced an immediate and very obvious beneficial effect; whereas the latter, it will be generally admitted, have just as frequently appeared to be inert or injurious, as to be efficient and useful.

Congelation, in respect to its use in erysipelas, is what is termed a rational remedy. Its analogies with other acknowledged remedies of inflammation would recommend its employment in this disease. Much of the danger of the erysipelas which affects the face and neck, unquestionably proceeds from the extensive and severe inflammation of the skin; and to the suppression of this the efforts of physicians have been directed. Now, as cold is a remedy of inflammation of admitted efficacy, it is reasonable to suppose that by subjecting the diseased tissue, and this alone, to a short application of a much greater degree of cold than has hitherto been employed, a greater depressing or antiphlogistic power may be exerted. Again, as experience would show that bleeding when it produces syncope, is a more certain mode of checking inflammation than when it does not produce that effect, so severe cold or congelation,

which, like fainting, checks the circulation of blood through the part subjected to it, may likewise be useful, for the same reason, and under the same circumstances. The morbid action of the blood vessels being thus arrested for a time, the healthy circulation may, by the efforts of nature, be immediately afterwards restored. Such reasonings, however, are of little importance in comparison with the following facts:—

Case I.—Charlotte Shepherd, 10 years of age, living at 17, New Dorset street, became a patient of the Brighton Dispensary on the 15th of Nov., 1848. When I first saw her, two days afterwards, there was much swelling and redness of the face, and the eyes were closed. Considerable fever was present, and, occasionally, delirium. She had been purged, and had taken antimonial and saline medicines without any mitigation of the symptoms. I applied a mass of pounded ice and salt, by means of a flat sponge, to each side of the face, for about a minute, or until large patches of the skin had become white and hard, or in other words, frozen. She did not complain of the application, but on the contrary appeared to obtain immediate relief. The salt was washed off the face, and the saline mixture ordered to be continued.

17th.—The erysipelas has extended to the neck, and has returned to one side of the face and the ear. Increase of delirium and of the general febrile symptoms. The frigorific was again applied as before, to the inflammed surface, and with the same immediate beneficial result. To take a laxative, and to continue the mixture.

18th.—The fever and delirium subsided towards the evening of yesterday. The swelling has now quite left the face, and nearly the neck.

From this period the convalescence was rapid. Little medical treatment, besides attention to diet, was deemed necessary during the remaining period of attendance.

A young sister of this girl was attacked with erysipelas about a month afterwards, and died after a fortnight's illness. The fever was typhoid, and she gradually sunk from exhaustion. She was judiciously treated by moderate antiphlogistic remedies in the first, and by tonics and stimulants in the latter stage. My opinion was requested towards the end; but I did not think that congelation could then be of service. I now regret that it was not employed, as, without putting the patient to the least hazard, it would have removed or lessened one cause of asthenia, and diminished one source of suffering.

Case II.—W. Mansfield, aged 47, residing at No. 1, Leicester street, admitted a patient of the Dispensary, with erysipelas, on the 12th January, 1849. Was seen at first by the house-surgeon, who prescribed a laxative, and a saline mixture containing antimony. When I took charge of the case on the 14th, I found him laboring under the disease in its severest form. He had been very delirious during the night, and continued to be excited, and at times incoherent. The face was much swelled and distorted, and the eyes closed. He complained of a very painful sense of burning in the inflamed parts. There was much fever. I applied pounded ice and salt in a piece of thin silk gauze, to the whole of the inflamed surface, by shifting the bag from place to place, and with the effect of freezing large patches of the skin. Each application may have lasted nearly two minutes. There was a little smarting during and immediately after the congelation, but this was succeeded by complete relief. To continue the medicine already prescribed.

15th.—The inflammation on the face hardly perceptible, but has extended all around the neck and the pain is severe. Passed a restless night, and the fever, which had subsided for about twelve hours, again

rose to its former height. The frigorific was again repeated, and kept in contact with the different portions of the inflamed skin, until nearly the whole had become white and frozen. A mixture containing quinine to be substituted for the saline medicine.

16th.—Little appearance of inflammation on any part of the face or neck, and no uneasiness. Slept better in the night, though occasionally incoherent.

The fever has decreased. To continue the tonic, and to take wine.

From this time, and under the same tonic remedies, he recovered rapidly.

Case III.—Harriet Tree, aged 4 years, residing at No. 16, New Dorset street, (next door to the residence of the girl whose case has been related), was admitted a patient of the Dispensary, with fever, on the 15th January, under the care of Mr. Smith, who obligingly transferred the case to me when the inflammation of the face had betrayed the nature of the disease.

On the 16th, inflammation was perceptible on both the cheeks and the forehead. I applied to these parts in succession a solid bit of ice, covered with salt, and which had been slightly hollowed into corresponding shape, by being held for a few seconds in contact with a jug containing hot water. The refrigeration thus produced was not sufficient to blanch the skin, though the application was made for more than a minute. A saline mixture containing antimony and hyoscyamus, to be continued.

17th.—The inflammation has spread over the face, and the eyes are opened with difficulty. Pulse febrile; restless, and apparently in much pain. A mixture of ice and salt was applied over the inflamed surface, but with little more apparent effect than on the former occasion, owing probably more to the insufficient quantity of the frigorific employed, than to the violence of the inflammation. A mercurial laxative to be taken night and morning, and the fever mixture continued.

18th.—Much ease appeared to have been afforded by the applications of yesterday, as she slept soundly for some time afterwards, and had immediately ceased complaining. The uneasiness, however, returned in the night, and she is now (3 P. M.,) very restless, and raising her hand incessantly to her face, on which there are several vesications.—The frigorific re-applied for about a minute, and had the effect of freezing portions of the skin. After the skin had been washed, she was placed in bed and almost immediately fell asleep.

19th.—Better. The face is still swelled, and the eyes shut; but there is less heat in the inflamed part, and less fever. To continue the medicines.

20th.—The neck now much inflamed, as well as both sides of the face and both ears. The fever has increased. Tongue dry, with a brown fur in the centre: and the mouth appears inflamed. In the evening the frigorific was again applied, and much more effectually than on former occasions. About a pound of ice having been well pounded, (in a small canvass bag, placed on the brick floor, by means of a flat-iron), and quickly mixed with about half the quantity of salt, was put into a thin silk gauze bag, and applied for upwards of a minute over the face and neck, a third or fourth portion of the surface at the time; the frigorific being renewed for the last applications, and the melting ice being absorbed by cloths placed close to the bag or net containing it. The whole surface was thus frozen, and continued hard and white for half a minute. A mixture of acetate of ammonia and soda prescribed, and taken at intervals.

21st.—Much relief was given by the congelation, as on the former occasion, and the swelling of the face and neck has nearly disappeared, excepting the eyelids, which continue closed. Tongue dry and more furred. Pulse more frequent, and much restlessness. The sensorium continues unaffected. Refuses to take food, and has evidently pain from what is forced upon her, and a difficulty of swallowing it. The breathing is not embarrassed, and there is a frequent hacking cough.—To have wine and beef tea.

22d.—The inflammation has not returned in the neck or face, but appears to have increased in the mouth and fauces. Tongue very foul and dry. Pulse quick and weak. Occasional incoherence. To continue the wine, and to take a mixture containing carbonate of ammonia every four hours. An opiate at bed-time.

23d.—Better. Tongue more moist; less restlessness; takes nourishment more willingly. A laxative prescribed.

24th.—Recovering. When she was at last able to open her eyes, the conjunctiva of one was observed to be much congested; but there was no intolerance of light, or expression of uneasiness from this cause.

It will have been remarked in perusing the details of the above cases, that the beneficial effects of the congelation were immediate, and otherwise so well marked as to prevent any doubt of its efficiency. In this respect it is strikingly in contrast with the remedies hitherto employed in erysipelas. The practice of scarifying the inflamed surface, or puncturing all over with a lancet may frequently be of some service, notwithstanding the irritation which the wounds themselves, and their exposure to the air, must necessarily produce; but the painting of the part with lunar caustic, and the application of warm fomentations, or cold lotions, I am disposed from my own observation, to place, with respect to efficiency, in the same category with the old practice of the application of flour.

The absence of all injurious effect, or untoward consequence, from the congelations that were used, will also be equally obvious. The cerebral disturbance was uniformly relieved, and had the patient whose case is last related been of more advanced age, so that a solution of salt about the temperature of zero might have been easily applied to the mouth and fauces, her disease, I have little doubt, would have had an earlier termination. A stronger application of congelation to the face might, perhaps, have had a similar effect, by preventing the extension of the inflammation to the mucous surface.

The applications of severe cold were generally slight, and I am inclined to think that they would have been more efficacious had they been less so; that there might, at least, have been less necessity for repeating them. But there is, probably, no great difference, as respects the safety of the patient, between at once removing the inflammation and the susceptibility of its renewal, and checking it again and again on its approach; unless, indeed, the disposition to spread, just adverted to, be thus prevented. Some of the applications were milder than was desirable, on account of a defect in the means employed. If ice and salt be the frigorific resorted to, it is proper, where the skin is acutely inflamed, and consequently greater frigorific power is required, to employ it in the best and most effectual manner, as on the last occasion of its being applied in the case. The greater expenditure of material, now that ice can be every where procured at trifling cost, and in every season, is a point of no importance.

Although congelation may have no power in shortening the period of erysipelatous fever, or preventing it running through its several stages, (and it certainly did not appear to have this power in the third case related), it will obviate the danger that would arise from the accompanying external or accessible inflammation. The danger from small-pox is, *cæteris paribus*, very much in proportion to the extent and degree of the inflammation of the skin, and particularly, in the opinion of Sydenham, of the skin of the face. It is this, probably, which makes the great distinction, in respect to danger, between the distinct and confluent species; and the same principle probably applies to erysipelas. A high and extensive inflammation must (as has likewise been remarked by Sydenham) necessarily increase the febrile action in this disease, or cause as it were, a symptomatic fever in addition to that, which is specific, and tend to exhaust the animal powers—tend, in fact, to produce or aggravate the asthenia, which in erysipelas is usually the cause of death. Inflammation of other systems or organs, occurring in typhus and other febrile diseases, must for the same reason, and independently of any consequent disorganization, materially increase their danger; but in all such cases, whether the skin or internal organs be affected, there is, in addition, the irritation or injurious influence proceeding from the disturbance of the function of the inflamed part. It is, therefore, not only in erysipelatous fevers that congelation will be found a remedy of great importance in subduing local affections; it will probably be also very serviceable in other analogous diseases, accompanied with inflammation of superficial or other accessible parts. The skin, mouth, and throat, are obviously under its control; the windpipe and cerebral membranes are not probably beyond its reach. If the latter do not admit of congelation, they may have their temperature reduced to a much greater degree than has been hitherto attempted, and with great remedial advantage. The point to be aimed at is, perhaps, not so much congelation, as that degree of refrigeration which will *permanently* depress the nervous and vascular energies, or depress them without causing reaction. This must be far below the degree to which any application of water or ice will reduce the temperature of the part.

The notion that certain external inflammations are, even to their full existing amount, necessary safety valves or emunctories for the materies morbi, or are otherwise essential to the patient's safety, is now, happily, nearly exploded. Physicians have become well aware that hypothesis, or ill-founded theory, has formed the grand impediment to the progress of the art of healing; and in no instance has the superiority of observation to theory been more remarkable than in the modern treatment of erysipelas. Amongst other means of subduing the external inflammation, cold applications are now generally recommended; and in this improvement there is only a return to the practice of Celsus (Book v. 26), and of his successors for many ages. In confirmation of the downfall of the doctrine of metastasis from cold, the public lectures on the practice of physic of two distinguished professors in the colleges of the London University, and the lectures of the present occupants of the chairs of surgery in the medical school of St. Bartholomew's Hospital and University College, may be referred to. "There is no hazard," says Dr. Watson, speaking of the use of cold in erysipelas, "such as you may read of, of inflammation being repelled from the surface and driven in upon some vital organ." But even granting that cold, as it has hitherto been usually applied, is dangerous in certain specific inflammations from its tendency to cause the metastasis, (and there is little authority

in favor of its use in rheumatism or gout;) it must be especially borne in mind, that there is a wide difference between congelation and such applications of cold. At first it might appear to differ only in degree,—in being greater than these and consequently more dangerous; but in truth, it is much less a cooling application. If a physician wishes to heat a limb of a patient, he would surely have it immersed for half an hour in warm water, in preference to applying a red hot iron for a few seconds to the skin; and he would in cooling a limb make a similar distinction between continued cold and momentary freezing. Dangerous as plunging a limb affected with gout into cold water, according to Harvey's plan, may be, the same objection would not apply to the exactly limited and short application of congelation to the affected part; and the same observation would apply to the treatment of many varieties of rheumatism. Analogy, on the contrary, would point out such a remedy as one likely to be eminently useful in these complaints, in allaying suffering and preventing the disorganization of joints, while appropriate medicines were simultaneously exhibited as antidotes to, or evacuants of, the supposed materies morbi.

The resemblance between erysipelas and the exanthemata, or eruptive fevers, may have led to the unfounded fear of metastasis from cold; but although there are resemblances between these diseases, there are great differences as well: the frequency with which the same individual may be attacked by erysipelas is one of these; and the irregularity of the course of the disease, (supposing that there is only one kind of erysipelatous fever — a point by no means established,) is another. I believe that much more importance is attributed to the cutaneous eruption in diseases of this class than ought to be. If there be poison eliminated, there are other emunctories for this purpose besides the skin. As there is frequently scarlatina without eruption, so probably, measels and the fevers of erysipelas may exist without it. Nay, considering that cases of small pox occasionally occur with scarcely a dozen pustules spread over the skin, it is not very improbable that even this disease, (as was, indeed the opinion of Sydenham,) may likewise run its course, and the system be purged of its poison, without observable cutaneous affection. In the fever caused by vaccination, there is no eruption of pustules; yet, if there be poison evacuated in the natural small pox, it can scarcely be doubted that an analogous process takes place in cow-pox, which is only a modification of it. The immunity which many persons appear to possess from the contagions of the several exanthemata would thus readily admit of explanation; and more effort might be made (were this point established) to endeavor that the disease should run a milder or safer course, instead of "forcing the eruption out," or causing extensive and assuredly dangerous inflammation of the skin, and suspension or derangement of its important functions.

The necessity of repeating the congelations in the cases narrated above, may have been partly owing to the insufficient degree of many of the applications, and partly to the still existing cause of the inflammation —the exanthematous fever. While the cause of the inflammation continues active, a great change indeed would be required in the organization or function of the part to prevent its return. I do not say, that this cannot be effected by congelation, but when the application can be so easily renewed, without pain or discomfort to the patient, such a change does not appear very important. When congelation has been used to arrest the inflammation and suffering which arise from mercurial ptyalism, (and no remedy of this distressing state is comparable to congela-

tion in efficacy and celerity of action,) it has been usually necessary to repeat the application after an interval, on account of the persistence of the cause; and as the application of the frigorific immediately benumbs the patient has never objected to its repetition. In suppurating boils, carbuncles and glandular swellings, when congelation has been used to put a stop to the suffering of the patient and procure sleep, it has been seldom necessary to repeat the application, notwithstanding the persistence of the cause, probably on account of the inflammation being thereby much subdued; and the formation of pus being rendered much slower, the parts are more adapted to it — the fibres have become not only less stretched, but in some instances the matter appeared to have become more absorbed, as the swelling gradually disappeared without breach of substance. It would generally, however, be a better practice in these cases, seeing that after a momentary congelation the abscess can be opened without pain, at once to liberate the purulent deposit and relieve the distant fibres by a free incision.

I trust that enough has been said to induce practitioners to have recourse to congelation in the treatment of erysipelas. Conscious that a strong prejudice exists against the employment of extreme cold, from the error of not discriminating between its effects when the body has been exposed for an unlimited period, and when it is employed remedially, and carefully limited in degree, duration and extent, I had almost determined not to write again on the subject until I had opportunity of doing so fully, and with a host of experimental proofs of my allegations; but the conviction that congelation is the only remedy to be relied upon in erysipelas, and that by its use much suffering and many lives may be saved, has persuaded me to the publication of this paper. I have only had the opportunity of employing congelation in the three cases of erysipelas which I have related, but the results of its application in these are sufficient to establish the excellence of the treatment. And the publication of these proofs, not only of the perfect safety, but of the great advantage of congelation in a species of inflammation which is usually considered as prone to gangrene, cannot fail to remove the apprehension of injury from employing it under different circumstances, and for other and not less important purposes. With respect to remedial properties, I shall, on another occasion, give illustrations of the use of congelation, in phlegmonous inflammations, chronic diseases of the skin, ophthalmia, &c.; and in certain neuralgic affections, including varieties of headache. Although headache may not often shorten life, it very often embitters it, by resisting every remedy that has been hitherto employed. In no disease has the efficiency, safety and speedy operation of congelation been more conspicuous than in this painful affection; which appears in many cases to arise from a more or less permanently morbid state of the nerves of some portion of the forehead or scalp.—*Monthly (England) Magazine.*

10.—*Expulsion of an iron Fork per anum, twenty months after having been swallowed.* By M. J. B. S. Chemin. (Translated by Henry Rossignol, M. D., of Augusta, Ga.)

On the 15th May, 1847, I was called to M. Houe, farmer, aged 32 years. In endeavoring to extract a bone from the upper part of the œsophagus, he had swallowed an iron Fork coated with tin. It was five inches in length and about one in width.

The bone was scarcely arrested, when deglutition became very difficult; there was immediately a sharp pain felt about the middle of the ster-

num; a sensation of sticking and extreme uneasiness in this region; and respiration was anxious. M. Houe introduced a fork into the œsophagus, with the intention of extracting or pushing down the foreign body. This at first caused nausea, then such violent efforts at vomiting, that, in his sufferings he let the fork go, which, after a few attempts at deglutition, dropped into the stomach.

Becoming very uneasy about his situation, he went to Paris, hoping that the fork might be withdrawn from the stomach. He consulted M. Velpeau among others, who removed his fears, by telling him that no bad effects would follow the accident, and that it would be expelled, sooner or later, through the natural passages, without the necessity for an operation.

On his return home, he sent for me. I found him less uneasy in mind; but nevertheless he experienced great sufferings, particularly after eating or drinking. He is occasionally troubled with nausea; water rising frequently and abundantly to the mouth. The fork is believed to be in the larger end of the stomach, the teeth turned to the left side. It continued in this position fifteen days, then passed towards the pylorus, where it remained nearly four months. During this time, there was vomiting of black matter several times during each day. The mouth is continually filled with an aqueous fluid; excessive and incessant suffering; epigastrium very tender; pulse normal; tongue moist; no appetite; sensation of drawing about the stomach; impossibility of supporting the least food.

At length the fork passed the pylorus, and went through the small intestines in six weeks, and stopped for thirteen months at the ileo-cœcal valve.

During the passage of the fork through the small intestines, the pain was sharp and intermittent; impossibility of lying upon either side; walking and the slightest movements occasioned pain, and produced a sensation resembling pricking of needles. In the morning, M. Houe can, by palpation, feel the fork distinctly with the hand; he has great difficulty on going to stool.

After remaining five months in the right side, the fork began to dissolve. At this time, M. Houe experienced severe colics and passed matter of a black and brick-dust colour; continual constipation; abdomen much distended and very sensible to the touch; acute pains in the hypochondriac regions; violent colics; disgust; headache; sleeplessness; pulse natural; emission of urine frequent and painful; right testicle swelled. For the next eight months, constipation and diarrhœa alternately; colics less violent; blackish, stercoracious matter; abdomen tender; thirst great. [M. Houe consulted his taste only, drank from five to six litres of wine daily, and at breakfast thirty grammes of aniseed cordial to expel wind.] Appetite very great; an incessant desire of eating, [five to eight pounds of food per day, without satisfying the appetite.]

The patient nevertheless resumed nearly all of his former occupations, and recovered his strength. Towards the 10th of December, 1848, Houe experienced such violent colics and weakness, that he was near dying. I was again called. On my arrival, I found the abdomen distended; a dull and deep pain was felt in the right iliac fossa; obstinate constipation for some weeks past; tongue moist; pulse natural. After taking 60 grammes of castor oil, which caused a large evacuation, he was relieved. From this period he has not suffered, believed himself rid of the fork and continued his ordinary occupations.

At length, on the 8th of February, 1849, twenty months after swallowing the fork, M. Houe suddenly experienced pains in the lumbar region

and a desire to go to stool. Stool copious, composed of bloody fecal matter, in which Mr. Houe found a large portion of the fork. It was the portion between the handle and teeth.

He is now perfectly well, and experiences no inconveniences whatever.

The treatment consisted of flax-seed tea, cataplasms, emollient injections and laxatives, [castor oil.]—*Med. Gaz. of Pa is.*

OBSTETRICS.

11.—*Vicarious Menstruation.*

[Communicated to a distinguished Medical Gentleman in Philadelphia.]

Dear Sir: Yesterday, quite an interesting, and, so far as my knowledge extends, somewhat unique case was presented to me for medical advice. The following is a brief summary of the case, as detailed to me by the individual herself.

Miss M., æt. 20, of medium size, and dark complexion, was attacked with severe pains in the uterine region, about one year or more ago.—She labored under a severe spell of sickness, under the care of Dr. Atlee and other physicians of Lancaster. For some time her life was despaired of, but she ultimately recovered, and for more than nine months subsequently was unable to *urinate*, save by the aid of the catheter. Her catamenial discharge appears monthly, and, according to her account, plentifully. Her menstruation continues usually about four days; but the most interesting part is, that, at each menstrual period, she spits up large coagula of blood, and there is also a discharge from one of her nipples of a sanguineous fluid, both commencing, continuing and stopping at the same time with that of the menses. Now I have heard of vicarious menstruation, but then there was no discharge from the uterus at the same time, or, if any, it was very scanty. Can it be owing to an engorgement of the stomach and mammæ at the same time with that of the uterus? and if so, whence the cause? Would it be dangerous to attempt arresting these periodical flows from the stomach and mammæ?—And if so, why should it be dangerous, inasmuch as a goodly discharge is going on from the uterus at the same time? The young woman is not any ways emaciated, but, on the contrary, looks quite plump, or, as the French would say, *embonpoint*. She is troubled with considerable pain in the small of her back. Time will not allow me to say more at present. I wish you to answer this immediately, and give me your opinion on the subject, treatment, &c. Yours respectfully, W. R. B.

[*Boston Medical Journal.*

12.—*On the Treatment of Asphyxia Neonatorium.* By J. O. Fletcher, Esq., Manchester.

[Refering to the plan of treating still-born children by the use of warm and cold water alternately, Fletcher, says:]

I have been in the habit for some years of treating all such cases in a very similar way, and with great success. I first immerse the child in warm water, and, upon withdrawing it, cover the chest with a cloth or sponge well soaked with cold water (the colder the better:) again immerse it in warm water, and again apply the cold water, so on alternately using the hot and cold water, until there is evidence of respiratory movements. The first application of cold will generally produce a sligh

sob, and repeated applications will establish respiration. I conceive the good arises from the sudden impression caused by the cold on the cutaneous nerves, (which are the principal) "*excitor nerves*" in the reflex action of respiration. This is followed by response along the "*motor nerves*" of this function as the phrenic, intercostal, &c.: hence the sob on the first application, and the establishing of respiration by being repeated. I have for an equally long period, been in the habit of ligating the cord before the complete birth of the child, in breech and feet presentations, sometimes even before the pulsations were obliterated, believing, as I do, that the child in these cases dies from hemorrhage into the placenta, arising from the umbilical vein being much exposed to pressure, by virtue of its superficial and unprotected position in the cord, which, together with the tenuity of its tunics render it very liable to have its current obliterated, whereas the tunics of the umbilical arteries are firmer, and they themselves much exposed; thus they are in a measure protected from the consequences of slight pressure. Therefore, the flow of arterial blood through the vein may become obliterated, whilst the venous blood continues to flow along the arteries, from the child, into the placenta, without there being any counterbalancing stream; hence the great mortality in these cases by the usual treatment, and hence the utility of ligating the cord early, thereby removing one fatal consequence; and, as it is well known that a child can breathe in the vagina, its chances of life are not to say the least diminished, but, I think, much increased; for out of thirty-seven cases that I have treated in this way, *two children only have died*, which is saying very much more than I can say for the usual treatment. In this class of cases especially, I think the good effects of alternate application of cold and warm water will be seen, if tried.—*Medical Times.*

PART FOURTH.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

1.—Practical Pharmacy: *The arrangements, apparatus and manipulations of the Pharmaceutical Shop and Laboratory.* By Francis Mohr, Ph. D., *Assessor Pharmaciæ of the Royal Prussian College of Medicine, Coblentz; and* Theophilus Redwood, *Professor of Chemistry and Pharmacy to the Pharmaceutical Society of Great Britian. Edited with extensive additions.* By William Proctor, Jr., *Professor of Pharmacy in the Philadelphia College of Pharmacy.* Illustrated *by five hundred Engravings* on wood. 8 vo. pp. 576. *Philadelphia.* 1849. Lea & Blanchard.

At the present day when the medical profession every where is becoming arroused to the importance of a thorough expurgation of the Materia Medica of its adulterations and inert trash, the work before us seems to be very opportunely announced. In fact, every thing that tends to enlighten and guide the Pharmaceutist in his various operations in the laboratory and dispensary is now needed and imperatively demanded by the medical public. Such is the law, and such is public opinion, that we as a people have very little to fear from adulterated and

factitious drugs, disgorged upon our shores by foreign wholesale dealers. Foreign drugs now come to us in their simple unsophisticated state, otherwise they are rejected or destroyed by duly qualified government officers, appointed for their inspection. By the operation of these laws, the work of the American Druggist and Apothecary is materially simplified, at the same time his responsibilities are greatly increased, for if adulterations and impurities are hereafter detected in our medicinal preparations, the sin will be at his door, and he will be held responsible.

This work originally published not long since in the German language from the pen of Francis Mohr, was less than two-thirds as large as the present volume. It was translated into the English language and edited by Professor Redwood, by whom it was revised and enlarged by the addition of such materials as brought it up to the present state of English Pharmacy. In this form it fell into the hands of the American publishers, who secured the editorial services of Professor Proctor, of Philadelphia for the purpose of adapting it to the profession in this country. Respecting his contributions to the work, he remarks in his preface "In passing through the hands of the editor, the book has been increased more than one-fourth in size. About one hundred wood cuts have been added; the arrangement of the subjects materially changed, and the work divided into chapters, each of which includes either one distinct subject, or several that have a certain generic relation to each other."

As it would be impracticable to give any thing like a complete analysis of this work in the present number of our Journal, it may be proper and a matter of interest to our readers, to state here some of the leading subjects treated of.

The first chapter treats of the "general arrangement" of the drug shop and laboratory, and of its several compartments, furniture, &c.—The second of weighing, measuring and the determining of specific gravities. Third, on the sources and management of Heat. Fourth, on Steam, Heating apparatus and its application to the purposes of Pharmacy. Fifth, on Comminution and Pulverization. Sixth, Decantation and Washing. Seventh, Filtration. Eighth, the Press. Ninth, Solution. Tenth, Evaporation. Eleventh, Distillation. Twelfth, Sublimation.—Thirteenth, Generation and absorption of Gases. Fourteenth, General Observations on the preparation of the Fixed Oils and Fats employed in Pharmacy. Fifteenth, Miscellaneous operations chiefly mechanical.—Sixteenth and, Seventeenth, Extemporaneous Pharmacy. Eighteenth, Apparatus for testing.

It will be seen by a glance at the above catalogue of general subjects, that while the work would be useful frequently to every physician in the country who bestows any attention upon the preparation of his own medicines, it will become a desideratum to every druggist and apothecary in the land. As druggists generally may not see this notice, nor have an opportunity of examining the merits of the work, it is hoped

that our readers who are all interested in the perfecting of the pharmaceutic art, will suggest to their respective druggists the advantages which may be derived from its careful perusal. There being no similar work of the kind extant in our language, it should meet with a ready and extensive sale. The illustrations, so essential to the elucidation of the subjects treated of, are numerous, large and beautiful. The paper and type are of the best quality, and taken all together, this superb volume is highly creditable to the distinguished authors and well known publishers.

2.—A Manual of Auscultation and Percussion. By M. M. Barth, and Roger. *Translated with additions.* By Francis G. Smith, M. D., *Lecturer on Physiology in Philadelphia, &c., &c. Second Edition.* 12 mo. pp. 167. Philadelphia. Lindsay and Blackiston.

The little volume before us is a new edition of Barth and Roger's *Resum* eon auscultation, with the addition of a very excellent and succinct treatise on Percussion. The celebrity of the authors both in Europe and America, precludes the necessity of any extended notice or commendation of the work from us. It is compact and brief in the elucidation of the several subjects that enter into and make up the complete system of Physical Diagonosis, and yet it is sufficiently elaborate to give the student and practitioner a clear understanding of the science in all its parts.

This edition is edited and translated by Dr. F. G. Smith, of Philadelphia, who has accomplished his duties with the utmost fidelity. Its mechanical execution is very creditable to the publishers.

PART FIFTH.

EDITOR'S TABLE AND MISCELLANY.

Columbus, November, 1, 1849.

OBITUARY.

It becomes our painful duty to announce to our readers the death of Dr. John Butterfield, the Editor of this Journal. This sad event occurred on the 7th of September last, at Salisbury, N. H. It is proper that a brief record of his life and character should be made on the pages of the Journal which originated under his auspices.

Dr. Butterfield was born in Stoddard, N. H., on the 2d of December, 1817, and consequently was not quite thirty-two years old at the time of his death. His early years were passed in the place of his nativity, and in the neighboring Academy at Francistown. The maturity of his character, even when a youth, is shown by the fact that he taught a large district school, with much acceptance, at the age of fifteen years.

His parents afterwards removed to Lowell, Mass., and he was soon chosen Master of one of the Grammar schools of that city. In this employment he continued several years with great credit to himself and advantage to his pupils. During this time he took an active part in various enterprises which interested the citizens of the place where he resided. He was a fluent and able public speaker, and became one of the leading young men of the city.

He commenced the study of medicine under the direction of Dr. Elisha Huntington, an eminent physician of Lowell, and engaged in his new pursuits with a zeal which clearly indicated his future success. He attended one course of Lectures at the Berkshire Medical Institute, Mass., and graduated at the College of Physicians and Surgeons, New York, in March, 1841. After practising a short time in Littleton, Mass., he returned to Lowell, and formed a partnership with his late preceptor, Dr. Huntington. The extensive practice of Dr. H., afforded him an excellent opportunity for the study of disease, and he was not negligent of the advantages which his position presented to him. He tested at the bed-side of the sick the opinions which he had found from books and from the instructions of his public teachers, and observed with his own eyes the ever varying phase of disease.

In the Summer of 1843, an agent of the Trustees of the Willoughby University visited New York for the purpose of procuring suitable persons to complete the medical Faculty of that institution. By the recommendation of Dr. Willard Parker, who fully appreciated the ability and energy of Dr. Butterfield, he was appointed to the chair of Theory and Practice.

A new and interesting field of labor was now opened before him. He was young in his profession and young in years — too young, it will be thought by many, to occupy acceptably such a position. But, though he had been engaged in active professional labors only a short time, yet the period of his pupilage extended through four or five years, and in all that time he had been practically familiar with disease. He was ambitious and studious, and from the moment of his appointment he determined to spare no exertion to make himself an acceptable and useful teacher. He labored with great industry, and the large classes which attended his instructions, will bear willing and ample testimony to his zeal and faithfulness. He began his labors as a public teacher of medicine with hesitation and self-distrust, but, as was natural, he gained confidence as he progressed, and came at length to feel at home in the department which it was his duty to teach.

It is not necessary to enter into a detail of all that occurred during Dr. Butterfield's connection with the School at Willoughby. While he bore his full share of the labors, he did not shrink from the responsibility which his position involved. The scenes attending the establishment of a rival Medical Institution, are still fresh in the recollection of all who

were concerned in them, and this is not the occasion to awaken old jealousies, or arouse evil passions. We are sure the subject of this brief account was as willing to forgive and forget as any man living.

In 1846, by an act of the Legislature of Ohio, the Medical Department of the Willoughby University was removed to Columbus. Dr. Butterfield was the chief instrument in effecting this change, and none can now deny that it was a judicious movement. The Capital of a State usually possesses superior advantages for public institutions of nearly every kind, and Columbus, from its local position and the character of its inhabitants, is peculiarly favorable in this respect.

The rapid growth of this new Institution, for it was really a new one, the munificent gifts of the late Lyne Starling, Esq., the consequent change of name to the "Starling Medical College," the commencement of a costly and imposing edifice — these were the scenes which mostly occupied the attention of Dr. Butterfield during the last two years of his life. He regarded with deep and abiding love the College over whose birth and infancy he had so fondly watched, and he had no earthly wish more constant and strong than to witness its prosperity, and to be the instrument of adding to its usefulness and renown.

In September, 1848, the first number of the Ohio Medical and Surgical Journal appeared, and Dr. Butterfield became its Editor. For a year he labored, as his other duties and his failing health allowed, to make a profitable and popular Journal of Medicine. Its success was almost unprecedented in the history of medical periodicals, and afforded much gratification to its editor. The Journal received the warm commendation of some of the most distinguished medical men in the country, but it was not a fair sample of what Dr. Butterfield would have made it, had his health been good. Every number was prepared under the influence of depressing illness and anxiety.

In April, 1847, Dr. Butterfield had a slight hæmoptysis. This was the first intimation of the fatal disease which preyed upon him for more than two years, and at length terminated his life. We will spare our readers the sad recital of the anxieties and doubts, the hopes and fears which filled these two years. He contended with a resolute heart against disease; there was no unmanly yielding, but a resolute determination to live as long as possible, and to make the most of life while it lasted. At length, however, the disease obtained the mastery, and he sank quietly into the arms of death, as a child falls to sleep on the bosom of its mother. The brilliant intellect passed away, and the manly form was laid in the grave.

His last resting place is one of the most beautiful spots in the Cemetery at Lowell, Mass.

A post-mortem examination revealed extensive tubercular disease of the lungs, of the mesenteric glands and of that part of the intestines in the region of the head of the colon.

Sometime before his death, Dr. Butterfield commenced the preparation of a work on Physical Diagnosis. His design was to make a practical manual for students and young practitioners. He had thoroughly studied the subject, and was a skillful auscultator. He would doubtless have made an acceptable and useful book, but he left it unfinished — a sad memorial to his friends of earnest labors and blasted hopes.

It would be a mournful pleasure to dwell on the character of Dr. Butterfield as a man and as a public teacher of Medicine. But we forbear, knowing the strong repugnance which he often expressed to obituary eulogium. Let it suffice to say that the classes which heard his lectures never failed to respect and love their teacher; it will be regarded as no disparagement to his colleagues, either at Willoughby or Columbus, to say that he was fully equal to the best of them.

Few were those who knew him that did not love him. One of the most companionable of men, brilliant in conversation, generous almost to a fault, quick to learn and strong of memory, making the most of the resources at his command, ambitious of distinction without being guilty of any meaness to acquire it--alas, that he should have died so soon.

He was a communicant of the Episcopal Church, and died in the peace and faith of the gospel.

Starling Medical College.—The preliminary course in this institution commenced on the 5th of October, and terminates with the week preceding the commencement of the regular session, which occurs on the 7th of the present month. There has been a very respectable attendance—about thirty were present at the opening of the course, and the number daily increased until the close, when the class numbered more than one hundred. Three lectures have been delivered each day by Professors S. M. Smith, Carter, Judkins, S. Hanbury Smith and Howard, besides the very valuable ocular demonstrations in microscopical anatomy by Dr. Gay.

Microscopical Anatomy, Minor Surgery, Physical Diagnosis, Insanity and Toxicology, every medical man will acknowledge, are subjects of the very highest importance, and it is a sufficient commendation of the October course, to know that these specialities are thoroughly taught and illustrated in it. The importance of this course is greatly enhanced, from the fact that these branches of medical science *cannot* be duly considered in the regular session. This valuable gratuity to the class, attended with a considerable sacrifice on the part of the Faculty, we are happy to say, is duly appreciated by a very large and unusually attentive body of medical students.

New College Edifice.—It is a subject of painful regret to those more particularly interested in the prosperity of the Starling Medical College, that the new edifice now in process of erection, *cannot* be so far com-

pleted as to accommodate the Faculty and Class during the session already commenced. The Trustees have made every possible effort to advance the work, and such was its forwardness in the Spring, that we entertained sanguine hopes of occupying the building, though in an unfinished state. But the breaking out and continued prevalence of the cholera in our city, together with the impediments growing out of our omnivorous State House, which has swallowed most of the stone from the quarries, brick and other materials, workmen and all—have effectually crippled all our agents engaged upon the structure. However, though annoyed and incommoded by the disappointment, we are not by any means discouraged. The Faculty of the institution are disposed to redouble their efforts, and to endeavor to make up in professional and scientific advantages what is defective in physical conveniences. The members of the class are generally satisfied with the condition of things as they are, realizing doubtless that the character and contour of the external edifice, like the clayey tenement of the human soul, is of but little consequence when compared with the advantage and accomplishments within.

Honor to whom Honor is due.—An account of a case of tracheotomy performed by M. Ricord at the Hopital du Midi, where the operator finding that the machinery of life had ceased to act during the operation, applied his mouth to the aperture in the patient's throat, rendered very repulsive by the recent application of a blister, sucked out the pus and blood which were obstructing the trachea, and by artificial respiration restored the man to life, and finally to health, has been transferred from the columns of Medical Journals to those of the public papers, accompanied by sundry well-earned compliments to the truly distinguished and philanthropic Surgeon, who, laboring under choleric symptoms at the time, allowed no thought of self to interfere with the performance of his duties to humanity.

The action of Ricord was a noble one; worthy of himself, his fame, his character and his calling; and we are well pleased that a corner of the curtain which hides us from the public gaze, should now and then be lifted up to let the world see what manner of men we "Old Hunkers" are. For what does the world hear of the host of as good men and true as Ricord, who toil on through a painful life of self-sacrifice at the shrine of humanity, until they sink into the quiet grave, not "unwept," albeit "unhonoured and unsung." The noble act of Ricord is rivalled—nay, outdone—every day of the week, by thousands upon thousands of "country practitioners," in this great West, to whom such doings are habitual, but who would blush to see them in print. Who among them but rises promptly from their warm beds, at the summons of the sick, to ride perchance ten miles in the dead of the night—dark and stormy—limbs benumbed—teeth chattering—to the log hut where

some poor woman travaileth in the pangs and perils of childbirth, there to pass hour after hour at the bedside of the sufferer, in that cheerless, miserable cabin, and then their duties performed, return home to seek rest, warmth and food, and find it? no, to start off to some other sufferer, again to buffet the driving sleet, to ford the swollen creek, or cross the dangerous swamp, and for what reward? Well! they get well paid for their trouble, sneeringly says the worldly wise and worldly minded man. What do you call well paid, good sir? For what sum would you consent to be called up unexpectedly now and then, often just as you have closed your eyes in sleep, after a hard day's work? Would you think five dollars a rich reward? Of a surety, highly as you value the glittering ore, nothing like this would you look upon as "ample remuneration." Why the average pay which a country physician *receives*, taking one night case with another, would in any other trade or profession be thought ridiculously disproportioned to *the mere work and labor done and performed*; and yet how frequently does he receive nothing and less than nothing—not even thanks—but in return for all his most successful and unselfish exertions, is repaid with the grossest ingratitude. He does not *complain* of this, he does not court the martyr's crown, he abhors cant, and could never condescend to *ask* for sympathy and commiseration; he has the approval of his conscience, and hopes for the approval of his Maker, has enjoyed the pleasure of doing good, and has the proud satisfaction of feeling that he has been useful in his generation, and is content to plod on, loved and looked up to by those capable of appreciating the good sense that dwells in his head, or the kind feelings that warm his heart. Such are "country practitioners;" be their motto "excelsior."

Professional Peccadilloes.—On looking over the September number of the London Lancet (American reprint) we stumbled on "Clinical reports of twenty cases of sterility;" we read and re-read, unable to find anything of an interesting or instructive character in the whole twenty. Here follow two specimens. "Case 2:—In the year 1825, in the Ukraine, I attended the Baroness F———, who was sterile, and who had likewise, for some time been afflicted with what was supposed to be encysted dropsy. I drew off by tapping, a large quantity of fluid, and she regained her health, and lived many years after, without any return of the dropsy, but had no children. Case 8:—June, 1831, Mrs. R———, aged forty, married fifteen years without ever having been pregnant.—Enjoyed good health until a few months ago, when a swelling appeared in the abdomen. Menstruation has continued regular till five months ago, then she became sick in the morning, with loss of appetite. There is slight œdema of the feet; the symptoms did not arise from pregnancy, but the precise cause was not ascertained. "In No. 5 it is stated it was not ascertained positively whether she had ever been pregnant, but it

was certain that she had never carried a child to the full term." Very exact of a truth—a most *curiously exact* observation of a case of *sterility*. Again, in Case 9: "The symptoms disappeared to a great degree in the course of a few months, but whether they returned I was not informed." Indeed! then really sir, we think you need hardly have taken the trouble to write out for the printer the most meagre and miserable history of the case, which precedes the sentence we have quoted. And who, gentle reader, think you, is the author of these "Clinical reports of twenty cases of sterility," which contain no information of the least practical value, which are not even classed or arranged in any way, from which no deductions are drawn, which are published without one word of comment, and which offer no evidence that proper investigation was instituted in order to discover the cause of the sterility, and which are, most of them, perfect blanks, as far as treatment is concerned? Is it some ignorant blockhead, itching to see his name in print—"a book's a book, although there's nothing in't"—or is it some old man in his dotage, who having been received mayhap with favor in more youthful days, now thinks that scraps from his case-book or portfolio, are good enough for the rising generation that is pushing him, and such as him from off their stools. Old men are apt to think those that come after them sadly degenerate, and to look upon them with contemptuous eyes. But 'tis none of these. The author of "Clinical reports of twenty cases of sterility" is—credat judæus! Robert Lee, M. D., F. R. S., author of some really excellent works on that very branch of medical art and science, to which belong such clinical reports. What does Robert Lee, M. D., F. R. S., mean by publishing such trash as this? Is it that he thinks to feed the physicians of 1849 with the crumbs that fall from his library table? Or is Robert Lee, M. D., F. R. S., so little known to fame, that he is fain to advertise himself by publishing clinical—save the mark!—clinical reports of cases of sterility? Obviously this latter explanation cannot be the right one; for every body knows that Robert Lee has done the state medical some service; hence, the other seems to us the only explanation we can give of such conduct, unfortunately not without a precedent. 'Tis not so long since our Marshall Hall thought proper to offer to the medical public, the sweepings of his study, done up into the shape and semblance of a book, for which high crime and misdemeanor he was duly castigated by those savage men, the critics. What sort of an opinion of the understandings and capacities of their medical brethren, must those have, who dare to offer such rubbish for their grave consideration! and to sign it with their names, too, is an abominable hoax—a piece of humbug—would that they would keep to the anonymous on such occasions. To waste *their* precious time, whose time *is* wasted in reading and reading again, articles like the one which has roused our ire, which they would not have honored with a second glance,

had it not been headed "by Robert Lee," is in our eyes, a crime against humanity. Completely taken in by said name, we modestly attributed our failure on the first reading to discover any thing in the article but words, words, words—to dullness of comprehension on our part, as doubtless thousands who read it will also do; we therefore waded thro' it a second time; we appealed to others, we actually read it a third time; still no end, object or meaning could we discover in the publication of these cases. Now we do protest most energetically, against this abuse, protest against this bad example, against its impertinence, its immorality, its reckless throwing aside of that respect for one's own character and dignity, and standing, which ought ever to characterize the physician—above all, the teacher. The great men, the sages of our time, at whose feet we have delighted to sit and learn wisdom, men, the keenness of whose intellectual vision has enabled them to unravel many a "tangled skein" of morbid action, to see and to understand, and understanding, to explain to others the right method by which to restore to life and health and usefulness, the sufferer who, but for them, would languish and pine, and die—such men must not stoop to littleness like this. They are the fathers of medicine, the men having authority, and we would not for a world lose our love and respect for them. We would have them patterns of morality, of magnanimity, of private worth, as becomes the high priests of the temple of Esculapius. We would have them remember that the eyes of the medical world are upon them, that the influence their characters exert for good or for evil, is enormous, incalculable, reaching over many generations, that they are hence responsible to the profession, and to society at large, in proportion to the eminence to which they have arrived. If they have faults—and who that is human has not—in the name of suffering humanity let them exercise a little more discretion, and not lay bare their shame for the medical reformers to point the finger of scorn at; he who reveals a weak point to the enemy, is a traitor in the camp, for well he knows that it will be selected for attack. We have ever regarded the heroes of the healing art, from that good old heathen Galen, who in learning and teaching to others, how fearfully and wonderfully we are made, thought he was "composing a solemn hymn to the author of our bodily frame," down to W. Hunter who expiring, wished he had strength enough left to write a book on the pleasure of dying," as about as perfect men, as great examples, as can be produced, we care not in what walks of life. And shall the fathers of our times, the elders in the church medical, come down from this high estate, shall they lose that character for intellect and judgment, and learning and piety, and moral excellence, and patience, humility and industry, which has made them in all times the friends of the sick room, not indeed outwardly honored, not clothed in purple and fine linen, but personally loved, respected, revered—shall they take rank with the mean, the sordid, the vicious or the ignorant? Forbid it Heaven!

Note.—Since writing the above we have seen "clinical reports of twenty additional cases of sterility," in the October number of the Lancet, and have only to say that every additional case is an additional offence against the dignity of the profession.